Operators Manual

Installation, Operation & Service

Gas Floor Model Kettles

MODELS:

Stationary - KGL-40, KGL-60, KGL-80, KGL-100
Tilting - KGL-40-T, KGL-60-T, KGL-80-T
Short Series - KGL-40-SH, KGL-60-SH, KGL-40-TSH

KGL-40

KGL-40-T

KGL-40SH

Cleveland

Enodis

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Visit our web site at www.clevelandrange.com

SE95003-1 Rev. 6

KIROSKAY

FOR THE USER

IMPORTANT!

PRIOR TO REMOVING ANY FITTINGS ENSURE KETTLE IS AT ROOM TEMPERATURE AND PRESSURE GAUGE IS SHOWING ZERO OR LESS PRESSURE.

FOR YOUR SAFETY

DO NOT STORE OR USE GASOLINE OR ANY OTHER FLAMMABLE LIQUIDS AND VAPOURS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

WARNING: Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation and operating instructions thoroughly before installing or servicing this equipment.

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IMPORTANT

The following points are to insure the safe installation and operation of this equipment:

- Insure all gas and electrical supplies match rating plate and electrical stickers.
- Observe all clearance requirements.
- Disconnect the electrical power supply to the appliance before cleaning or servicing unit.
- All service must be performed by a qualified Cleveland Range Technician.
- Do not obstruct the flow of combustion and ventilation air.

The installation and connection must comply with current local codes, or in the absence of local codes, with CAN/CGA-B149.1 and .2 installation code or with the national fuel gas code, ANSI Z223.1-L988.

Post in a prominent location, instructions to be followed in the event the user smells gas. This information shall be obtained by consulting your local gas supplier.

The appliance and its individual shut off valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psig. (3.45 kpa).

The appliance must be isolated from the gas supply piping system by closing its individual manual shut off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig. (3.45 kpa).

RETAIN THIS MANUAL FOR YOUR REFERENCE.

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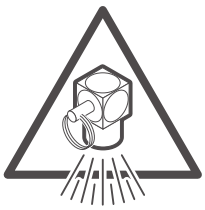
For your safety

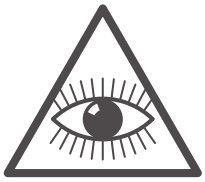
DANGER



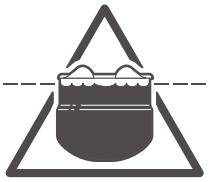
Keep clear of pressure relief discharge.

Keep hands away from moving parts and pinch points.

IMPORTANT



Inspect unit daily for proper operation.



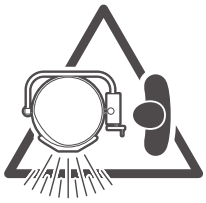
Do not fill kettle above recommended level marked on outside of kettle.

CAUTION

Surfaces may be extremely hot! Use protective equipment.

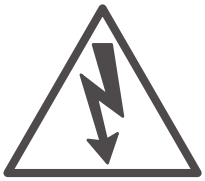
Wear protective equipment when discharging hot product.

Do not lean on or place objects on kettle lip.



Stand clear of product discharge path when discharging hot product.

SERVICING



Shut off power at main fuse disconnect prior to servicing.

Ensure kettle is at room temperature and pressure gauge is showing zero or less prior to removing any fittings.

GAS APPLIANCES

Do not attempt to operate this appliance during a power failure.

Keep appliance and area free and clear of combustibles.

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INSTALLATION

INSPECTION

Before unpacking visually inspect the unit for evidence of damage during shipping.

If damage is noticed, do not unpack the unit, follow shipping damage instructions.

SHIPPING DAMAGE INSTRUCTIONS

If shipping damage to the unit is discovered or suspected, observe the following guidelines in preparing a shipping damage claim.

1. Write down a description of the damage or the reason for suspecting damage as soon as it is discovered. This will help in filling out the claim forms later.
2. As soon as damage is discovered or suspected, notify the carrier that delivered the shipment.
3. Arrange for the carrier's representative to examine the damage.
4. Fill out all carrier claims forms and have the examining carrier sign and date each form.

GENERAL

Installation of the kettle must be accomplished by qualified installation personnel working to all applicable local and national codes. Improper installation of product could cause injury or damage.

This equipment is built to comply with applicable standards for manufacturers. Included among those approval agencies are: UL, A.G.A., NSF, ASME/N.Bd., CSA, CGA, ETL, and others. Many local codes exist, and it is the responsibility of the owner/installer to comply with these codes.

Observe all clearance requirements to provide proper make-up air flow. Do not obstruct the flow of combustion and ventilation air. Check rating plate to ensure that kettle has been equipped to operate with the type of gas available at the installation.

VENTILATION

Gas fired kettles are only to be installed under a ventilation hood in a room which has provisions for adequate make up air. Further information can be obtained by referring to the U.S.A. National Fire Protection Associations NFPA96 regulations. These standards have also been adopted by the National Building Code in Canada.

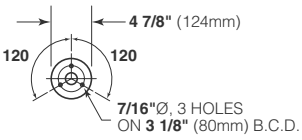
CLEARANCE REQUIREMENTS

This unit must be installed in accordance with the clearances shown on the rating label which is adhered to the unit.

FOR YOUR SAFETY. Keep the appliance area free and clear of combustible materials.

INSTALLATION

1. Position the unit in it's permanent location, and level the unit by turning the adjustable feet.
2. Once positioned and leveled, permanently secure the unit's flanged feet to the floor using 5/16" lag bolts and floor anchors (supplied by the installer). Three bolts are required to secure each of the flanged feet.



FLANGED FOOT DETAIL
(REAR LEGS ONLY)

3. Seal joints of flanged feet with a silicone sealant.

GAS

ENSURE THE GAS SUPPLY MATCHES THE KETTLE'S REQUIREMENTS AS STATED ON THE RATING PLATE.

It is recommended that a sediment trap (drip leg) be installed in the gas supply line. If the gas pressure exceeds 14” water column, a pressure regulator must be installed, to provide a maximum of 14” water column gas pressure to the gas control valve.

Connect the gas line to the manual valve located at the rear of the control box.

Installation must be in accordance with local codes and/or the National Fuel Gas Code ANSI Z223.1 Latest Edition (USA) or the latest Installation Codes for Gas Burning Appliances and Equipment CAN/ CGA B149.1 and CAN/ CGA B149.2 (Canada). Use a gas pipe joint compound which is resistant to L.P. gas. Test all pipe joints for leaks with soap and water solution. Ensure that the gas pressure regulator is set for the manifold pressure indicated on the gas rating plate.

The appliance and its individual shut-off valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psi (3.45 kPa). The appliance must be isolated from the gas supply piping system by closing its individual manual shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psi (3.45 kPa).

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ELECTRICAL

ENSURE THE ELECTRICAL SUPPLY MATCHES THE KETTLE'S REQUIREMENTS AS STATED ON THE RATING LABEL.

A cord and plug are supplied with the unit. Simply plug the unit into any grounded outlet rated for a minimum of 10 amps. The wiring diagram is located under the cover of electrical box inside the back console.

WARNING: Electrical Grounding Instructions.

This unit is equipped with a three-prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from this plug. Standard supply voltage is 115 volts A.C., however, optional A.C. voltages can be supplied on special order. A separate fused disconnect switch must be supplied and installed in the high voltage electrical supply line. The kettle must be electrically installed and grounded in accordance with local codes, or in the absence of local codes, with National Electrical Code, ANSI/NFPA 70-1990 (USA) or the Canadian Electrical Code, CSA C22.2, Part 1 (Canada).

WATER

The sealed jacket of the gas-fired kettle is precharged with the correct amount of a water-based formula, and therefore, no water connection is required to the kettle jacket. The kettle can be equipped with optional hot and cold water taps, requiring 1/2" copper tubing as supply lines.

CLEANING

After installation the kettle must be thoroughly cleaned and sanitized prior to cooking.

INSTALLATION CHECKS

Although the kettle has been thoroughly tested before leaving the factory, the installer is responsible for ensuring the proper operation of kettle once installed.

DO NOT ATTEMPT TO OPERATE THIS APPLIANCE DURING A POWER FAILURE.

KEEP APPLIANCE AND AREA FREE AND CLEAR OF COMBUSTIBLES.

1. Before turning the kettle on, read the vacuum/pressure gauge. The gauge's needle should be in the green zone. If the needle is in the "VENT AIR" zone, follow air venting procedure.
2. Unit has been thoroughly checked for gas leaks at the factory however the installer should check all connections using soap bubble or gas detector for any leaks which may have resulted from shipping or installation.
3. Supply power to the kettle by placing the fused disconnect switch to the "ON" position.
4. Open gas shut-off valve to turn on main gas supply..
5. Turn the temperature control knob to "**1**" (Min.). The green LED light should remain lit, indicating the burner is lit, until the set temperature is reached. Then the green light will cycle on and off, indicating the burner is cycling on and off to maintain temperature.
6. Tilt the kettle forward. After a few seconds the red "LOW WATER" light should be lit when the kettle is in a tilted position. This light indicates that the burner has automatically been shut off by the kettle's safety circuit. This is a normal condition when the kettle is in a tilted position.
7. Raise the kettle to the upright position. The red "LOW WATER" light should go out when the kettle is upright.
8. Turn the temperature control knob to "**10**" (Max.) and allow the kettle to preheat. The green light should remain on until the set temperature is reached. Then the green light will cycle ON and OFF, indicating the burner is cycling ON and OFF to maintain temperature.

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OPERATING INSTRUCTIONS

Operating Controls & Indicators

ITEM #	DESCRIPTION	FUNCTION
1.	Low Water Indicator Light (Red)	When lit, indicates that the kettle is low on water and will not operate in this condition. This will also light when the kettle is in the tilted position.
2.	On-Off Switch/ Solid State Temperature Control	Turns kettle ON/OFF and allows the operator to adjust the kettle temperature in increments from 1 (Min.) to 10 (Max.). (see the TEMPERATURE RANGE CHART).
3.	Heat Indicator Light (Green)	When lit, indicates that the kettle's burner is on. Cycles ON-OFF with burner.
4.	Vacuum/Pressure Gauge	Indicate steam pressure in PSI inside steam jacket as well as vacuum in inches of mercury.
5.	Pressure Relief Valve (not shown)	This valve is used to vent the kettle and in the unlikely event there is an excess steam build-up in the jacket, this valve opens automatically to relieve this pressure.
6.	Water Level Sight Glass	Displays water level in steam jacket.
7.	Tilt Wheel	Used for tilting the kettle on hand tilt models. In power tilt models there is a toggle switch in same location.
8.	Flue	
9.	Tangent Draw-Off Valve	Used for draining product or wash water from kettle. It is supplied as standard equipment on stationary kettles and is optional on tilting kettles.

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OPERATING THE KETTLE

DO NOT ATTEMPT TO OPERATE THIS APPLIANCE DURING A POWER FAILURE.

KEEP APPLIANCE AND AREA FREE AND CLEAR OF COMBUSTIBLES.

DO NOT LEAN ON OR PLACE OBJECTS ON KETTLE LIP. SERIOUS INJURY COULD RESULT IF KETTLE TIPPED OVER, SPILLING HOT CONTENTS.

IF YOU ARE COOKING AN EGG OR MILK PRODUCT, DO NOT PRE-HEAT KETTLE.

1. Before turning kettle on, read the Vacuum/Pressure Gauge (**5**). The gauges needle should be in the green zone. Once heated, the kettle's normal maximum operating pressure is approximately 10-12 psi while cooking a water base product.

2. Ensure that the electrical service to the kettle is turned on at the fused disconnect switch.

Temperature Control Setting	Approximate Product Temperature °F	°C
1.	120	49
2.	135	57
3.	150	66
4.	165	74
5.	180	82
6.	195	91
7.	210	99
8.	225	107
9.	245	118
10.	265	130

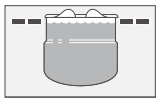
NOTE: Certain combinations of ingredients will result in temperature variations

Temperature Range Chart

3. Preheat the kettle by turning the ON/OFF Switch/Solid State Temperature Control (**2**) to the desired temperature setting (see above "Temperature Range Chart"). The Heat Indicator Light (Green) (**3**) will remain lit, indicating the burner is on, until the temperature setting is reached. When the green light goes off, the burners are off, and preheating is complete.

NOTE: When cooking egg and milk products, the kettle should not be preheated, as products of this nature adhere to hot cooking surfaces. These types of food should be placed in the kettle before heating is begun.

4. Place food product into the kettle. The green Heat Indicator Light (**3**) will cycle on and off indicating the burners are cycling on and off to maintain the set temperature.



NOTE: Do not fill kettle above recommended level marked on outside of kettle.

NOTE: The Low Water Indicator Light (Red) (**1**) should not be lit during kettle operation. This light indicates that the burners have been automatically shut off by the kettle's safety circuit. It is normal for the red light to come on when the kettle is in a tilted position..

5. When cooking is completed turn On/Off Switch/Solid State Temperature Control (**2**) to the "OFF' position.

NOTE: A five minute complete shut-of period is required before relighting.

6. Pour the contents of the kettle into an appropriate container by tilting the kettle forward. Care should be taken to pour slowly enough to avoid splashing off the product.

NOTE: As with cleaning food soil from any cookware, an important part of kettle cleaning is to prevent food from drying on. For this reason, cleaning should be completed immediately after cooked foods are removed. Refer to the Cleaning Instructions for detailed kettle washing procedures.

APPROXIMATE BOILING TIMES

The accompanying chart shows approximate times required for gas kettles of various capacities to boil water with the lid open. The ON/OFF Switch/Solid State Temperature Control (**2**) must be set at "**10**" throughout the heat-up period. Water will boil about 1/3 faster if the kettle is filled only to the outer steam jacket's welded seam resulting in a kettle filled to 2/3 capacity.

Kettle Capacity	Minutes
KGL, KGL-T	
40 gallon	35
60 gallon	47
80 gallon	60
100 gallon	75
KGL-SH, KGL-TSH	
60 gallon	27
80 gallon	34

Approximate Boiling Times

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CLEANING INSTRUCTIONS

CARE AND CLEANING

Cooking equipment must be cleaned regularly to maintain its fast, efficient cooking performance and to ensure its continued safe, reliable operation. The best time to clean is shortly after each use (allow unit to cool to a safe temperature).

WARNINGS

⇨

Chloride Cleaners

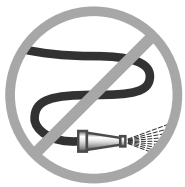
Do not use detergents or cleansers that are chloride based or contain quaternary salt.

⇨
Wire Brush &

Do not use a metal bristle brush or scraper.

⇨
Steel Pads

Steel wool should never be used for cleaning the stainless steel.

⇨ 
High Pressure Spray Hose

Unit should never be cleaned with a high pressure spray hose.

⇨
Stagnant Water

Do not leave water sitting in unit when not in use.

CLEANING INSTRUCTIONS

1. Turn unit off.
2. Remove drain screen (if applicable). Thoroughly wash and rinse the screen either in a sink or a dishwasher.
3. Prepare a warm water and mild detergent solution in the unit.
4. Remove food soil using a nylon brush.
5. Loosen food which is stuck by allowing it to soak at a low temperature setting.
6. Drain unit.
7. Rinse interior thoroughly.
8. If the unit is equipped with a Tangent Draw-Off Valve, clean as follows:
   - **a)** Disassemble the draw-off valve first by turning the valve knob counter-clockwise, then turning the large hex nut counter-clockwise until the valve stem is free of the valve body.
   - **b)** In a sink, wash and rinse the inside of the valve body using a nylon brush.
   - **c)** Use a nylon brush to clean tangent draw-off tube.
   - **d)** Rinse with fresh water.
   - **e)** Reassemble the draw-off valve by reversing the procedure for disassembly. The valve's hex nut should be hand tight only.
9. If the unit is equipped with a Butterfly Valve, clean as follows:
   - **a)** Place valve in open position.
   - **b)** Wash using a warm water and mild detergent solution.
   - **c)** Remove food deposits using a nylon brush.
   - **d)** Rinse with fresh water.
   - **e)** Leave valve open when unit is not in use.
10. Using mild soapy water and a damp sponge, wash the exterior, rinse, and dry.

NOTES

⇨ For more difficult cleaning applications one of the following can be used: alcohol, baking soda, vinegar, or a solution of ammonia in water.

⇨ Leave the cover off when the kettle is not in use.

⇨ For more detailed instructions refer to the Nafem Stainless Steel Equipment Care and Cleaning manual (supplied with unit).

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STAINLESS STEEL EQUIPMENT CARE AND CLEANING

(Supplied courtesy of Nafem. For more information visit their web site at www.nafem.org)

Contrary to popular belief, stainless steels ARE susceptible to rusting.

Corrosion on metals is everywhere. It is recognized quickly on iron and steel as unsightly yellow/orange rust. Such metals are called "active" because they actively corrode in a natural environment when their atoms combine with oxygen to form rust.

Stainless steels are passive metals because they contain other metals, like chromium, nickel and manganese that stabilize the atoms. 400 series stainless steels are called ferritic, contain chromium, and are magnetic; 300 series stainless steels are called austenitic, contain chromium and nickel; and 200 series stainless, also austenitic, contains manganese, nitrogen and carbon. Austenitic types of stainless are not magnetic, and generally provide greater resistance to corrosion than ferritic types.

With 12-30 percent chromium, an invisible passive film covers the steel's surface acting as a shield against corrosion. As long as the film is intact and not broken or contaminated, the metal is passive and stain-less. If the passive film of stainless steel has been broken, equipment starts to corrode. At its end, it rusts.

Enemies of Stainless Steel

There are three basic things which can break down stainless steel's passivity layer and allow corrosion to occur.

1. Mechanical abrasion
2. Deposits and water
3. Chlorides

Mechanical abrasion means those things that will scratch a steel surface. Steel pads, wire brushes and scrapers are prime examples.

Water comes out of the faucet in varying degrees of hardness. Depending on what part of the country you live in, you may have hard or soft water. Hard water may leave spots, and when heated leave deposits behind that if left to sit, will break down the passive layer and rust stainless steel. Other deposits from food preparation and service must be properly removed.

Chlorides are found nearly everywhere. They are in water, food and table salt. One of the worst chloride perpetrators can come from household and industrial cleaners.

So what does all this mean? Don't Despair!

Here are a few steps that can help prevent stainless steel rust.

1. *Use the proper tools.*

   When cleaning stainless steel products, use non-abrasive tools. Soft cloths and plastic scouring pads will not harm steel's passive layer. Stainless steel pads also can be used but the scrubbing motion must be in the direction of the manufacturers' polishing marks.

2. *Clean with the polish lines.*

   Some stainless steel comes with visible polishing lines or "grain." When visible lines are present, always scrub in a motion parallel to the lines. When the grain cannot be seen, play it safe and use a soft cloth or plastic scouring pad.

3. *Use alkaline, alkaline chlorinated or non-chloride containing cleaners.*

   While many traditional cleaners are loaded with chlorides, the industry is providing an ever-increasing choice of non-chloride cleaners. If you are not sure of chloride content in the cleaner used, contact your cleaner supplier. If your present cleaner contains chlorides, ask your supplier if they have an alternative. Avoid cleaners containing quaternary salts; it also can attack stainless steel and cause pitting and rusting.

4. *Treat your water.*

   Though this is not always practical, softening hard water can do much to reduce deposits. There are certain filters that can be installed to remove distasteful and corrosive elements. To insure proper water treatment, call a treatment specialist.

5. *Keep your food equipment clean.*

   Use alkaline, alkaline chlorinated or non-chloride cleaners at recommended strength. Clean frequently to avoid build-up of hard, stubborn stains. If you boil water in stainless steel equipment, remember the single most likely cause of damage is chlorides in the water. Heating cleaners that contain chlorides have a similar effect.

6. *Rinse, rinse, rinse.*

   If chlorinated cleaners are used, rinse and wipe equipment and supplies dry immediately. The sooner you wipe off standing water, especially when it contains cleaning agents, the better. After wiping equipment down, allow it to air dry; oxygen helps maintain the stainless steel's passivity film.

7. *Never use hydrochloric acid (muriatic acid) on stainless steel.*
8. *Regularly restore/passivate stainless steel.*

Recommended cleaners for specific situations

Job	Cleaning Agent	Comments
Routine cleaning	Soap, ammonia, detergent, Medallion	Apply with cloth or sponge
Fingerprints & smears	Arcal 20, Lac-O-Nu Ecoshine	Provides barrier film
Stubborn stains & discoloration	Cameo, Talc, Zud, First Impression	Rub in direction of polish lines
Grease & fatty acids, blood, burnt-on-foods	Easy-off, De-Grease It Oven Aid	Excellent removal on all finishes
Grease & oil	Any good commercial detergent	Apply with sponge or cloth
Restoration/Passivation	Benefit, Super Sheen	

Review

1. Stainless steels rust when passivity (film-shield) breaks down as a result of scrapes, scratches, deposits and chlorides.
2. Stainless steel rust starts with pits and cracks.
3. Use the proper tools. Do not use steel pads, wire brushes or scrapers to clean stainless steel.
4. Use non-chlorinated cleaners at recommended concentrations. Use only chloride- free cleaners.
5. Soften your water. Use filters and softeners whenever possible.
6. Wipe off cleaning agent(s) and standing water as soon as possible. Prolonged contact causes eventual problems.

To learn more about chloride-stress corrosion and how to prevent it, contact the equipment manufacturer or cleaning materials supplier.

Developed by Packer Engineering, Naperville, Ill., an independent testing laboratory.

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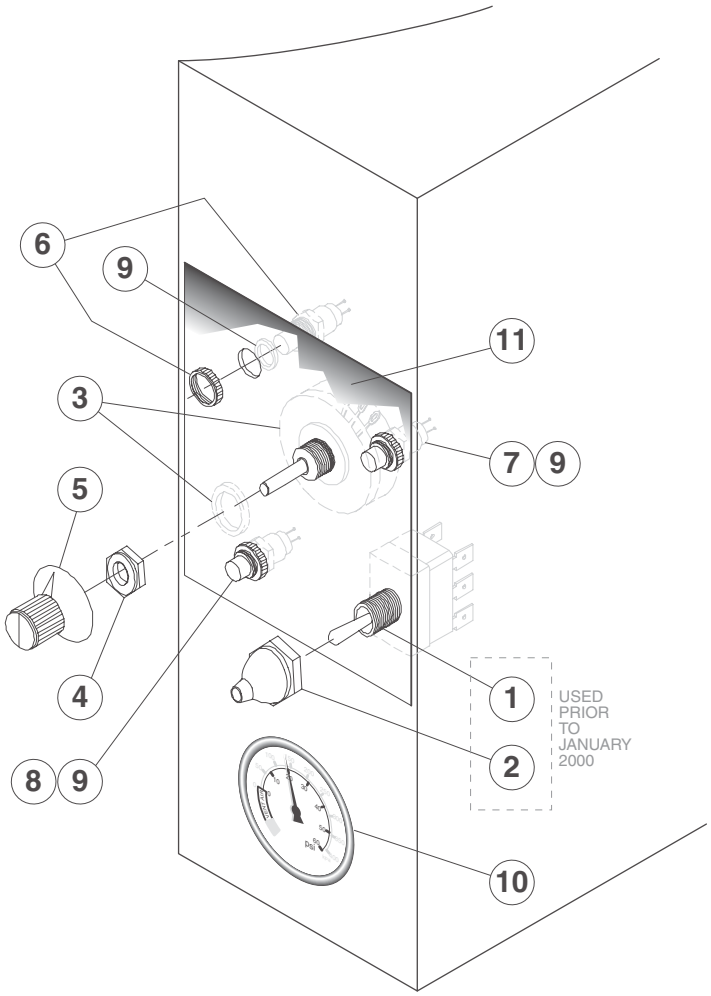
SERVICE PARTS

CONSOLE CONTROLS



ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	KE50504	SWITCH, TOGGLE (USED PRIOR TO JANUARY 2000)	1
2.	SK50062	RUBBER BOOT (USED PRIOR TO JANUARY 2000)	1
3.	SE00114	POTENTIOMETER WITH ON/OFF SWITCH, C/W ITEM #4	1
	KE50988-2	POTENTIOMETER (USED PRIOR TO JANUARY 2000)	1
4.	KE51005	RUBBER BOOT	1
5.	KE50569-1	KNOB, POTENTIOMETER	1
6.	SE003013-1	L.E.D., RED, Replacement Kit., (includes LED & "O" Ring)	1
7.	SE003013-2	L.E.D., GREEN, Replacement Kit., (includes LED & "O" Ring)	1
8.	SE003013-3	L.E.D., AMBER (Used prior to July 2004), Replacement Kit., (includes LED & "O" Ring)	1
9.	FA05002-18	"O" RING	3
10.	KE50429-2	PRESSURE GAUGE	1
11.	KE5555-5	LABEL	1
	KE95457	LABEL (USED PRIOR TO JANUARY 2000)	1

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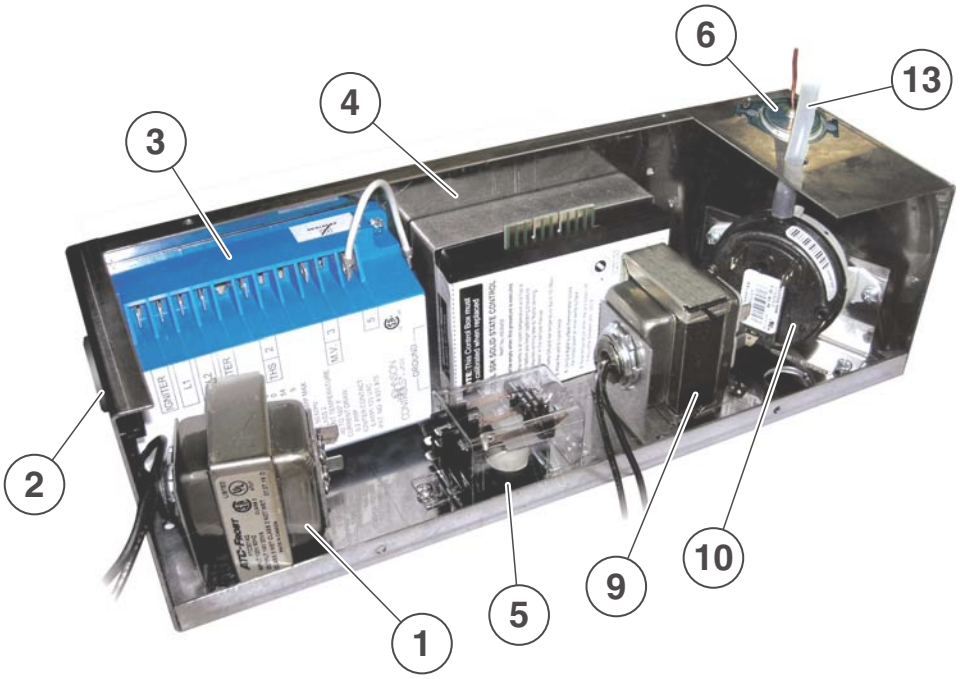
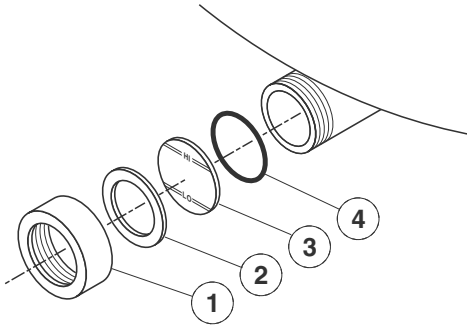
ELECTRICAL COMPONENT BOX



ITEM ON.	PART NO.	DESCRIPTION	QTY.
	KE01422	ELECTRICAL CONTROL BOX ASSEMBLY	1
	KE53439	COMPONENT BOX	1
	KE53440	COVER, COMPONENT BOX	1
	KE53599-1	GASKET	1
1.	KE53838-27	TRANSFORMER, 120-14V.	1
	KE53444	TRANSFORMER BRACKET	1
2.	KE54833-3	SNAP-IN BUSHING, 0.875" DIA.	1
3.	KE02372	IGNITION MODULE, PRIOR TO SEPT. 2004	1
	KE53469-4	IGNITION MODULE, SEPT. 2004 AND AFTER	1
4.	KE00458	KETTLE SOLID STATE CONTROL BOX	1
	KE50303	BRACKET, SOLID STATE CONTROL BOX	1
5.	KE50753-7	RELAY, 12V SPDT (FOR 60 CYCLE, 120V UNITS)	1
	KE50753-8	RELAY, 12V DPDT (FOR 50 CYCLE, 240V UNITS)	1
6.	KE55069-6	SAFETY THERMOSTAT	1
7.	FI05050	BRASS NUT, 7/16-24, PRIOR TO SEPT. 2004	1
8.	KE02400	AIR SWITCH, PRIOR TO SEPT. 2004	1
	KE55453-1	AIR SWITCH, SEPT. 2004 AND AFTER	1
9.	KE53838-20	TRANSFORMER 120-24V	1
13.	KE53582	TUBING 1/4 INCH SILICONE	
Not Shown	KE53523	TUBING 1/4 INCH COPPER, PRIOR TO SEPT. 2004	

SIGHT GLASS

ITEM ON.	PART NO.	DESCRIPTION	QTY.
1.	KE50955	RETAINING COVER	1
2.	KE52871	GASKET	1
3.	KE51053-1	SIGHT GLASS	1
4.	FA05002-30	"O" RING	1



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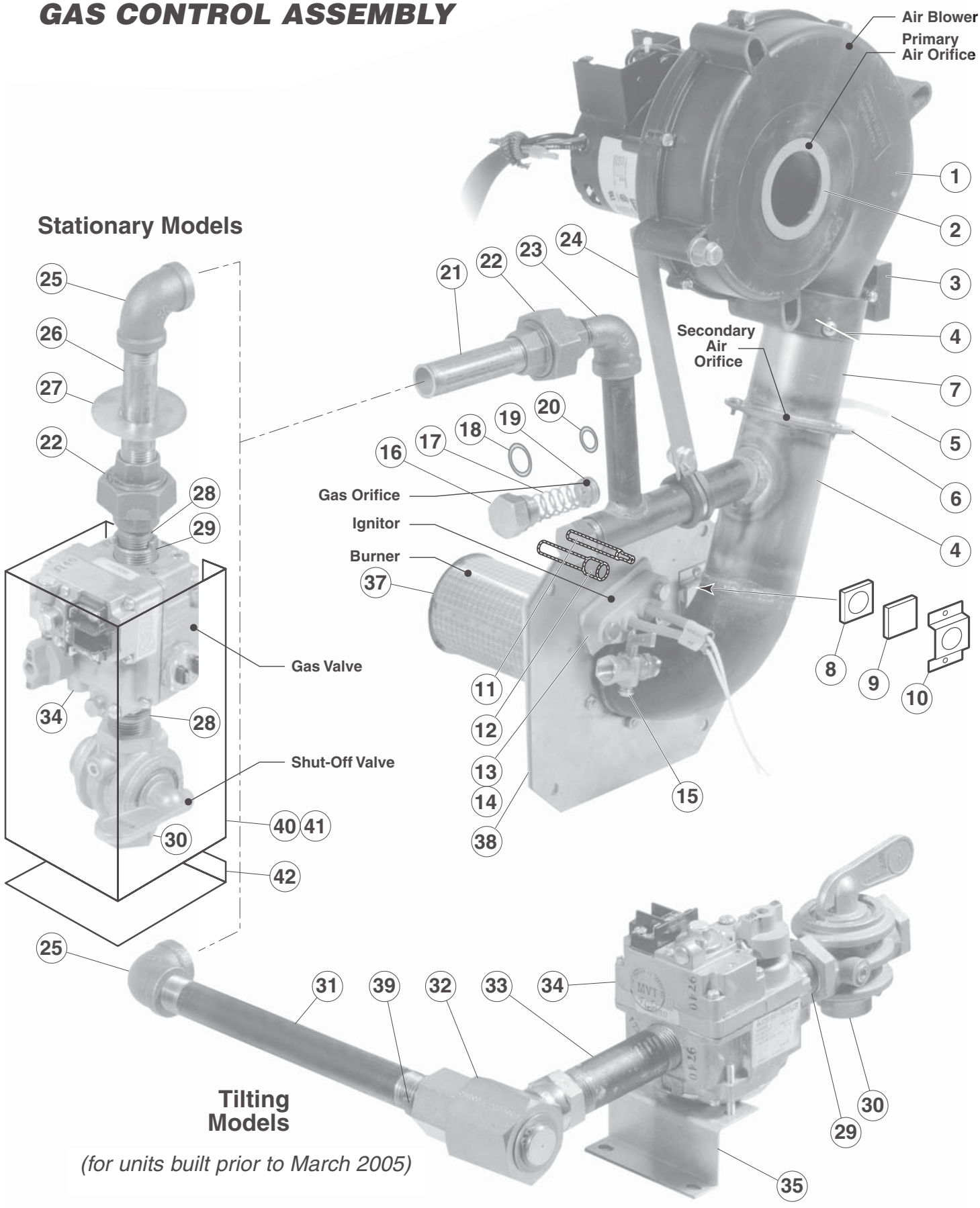
GAS CONTROL ASSEMBLY



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GAS CONTROL ASSEMBLY

ITEM ON.	PART NO.	DESCRIPTION	QTY.
1.	KE53441	BLOWER, 115V, 60 HZ	1
	KE53441-1	BLOWER, 220V, 50 HZ	1
2.	KE54420	AIR INTAKE WASHER (NATURAL GAS)	1
	KE54420-1	AIR INTAKE WASHER (PROPANE)	1
3.	KE54239	CAPACITOR	1
4.	KE01426-4	MIXING CHAMBER, 40 GALLON KETTLES	1
	KE01426-1	MIXING CHAMBER, 60 GALLON KETTLES	1
	KE01426-2	MIXING CHAMBER, 80 GALLON KETTLES	1
	KE01426-3	MIXING CHAMBER, 100 GALLON KETTLES	1
5.	KE53582	TUBING 1/4 INCH SILICONE	1
	FI05156	HOSE FITTING	1
6.	KE53402	AIR ORIFICE, 40 GALLON KETTLES	1
	KE53402-1	AIR ORIFICE, 60 - 100 GALLON KETTLES	1
	KE53402-2	AIR ORIFICE, 40 GALLON KETTLES (50 HZ BLOWER)	1
	KE53402-3	AIR ORIFICE, 60 - 100 GALLON KETTLES (50 HZ BLOWER)	1
7.	KE01449	BLOWER MOUNTING PIPE ASSEMBLY	1
8.	KE53618	SIGHT GLASS GASKET	1
9.	KE53617	SIGHT GLASS	1
10.	KE53619	SIGHT GLASS RETAINER	1
11.	KE00515	THERMISTOR	1
12.	KE50556-2	WATER LEVEL PROBE	1
13.	KE53437-3	IGNITOR	1
14.	KE53570	GASKET FOR IGNITOR	1
15.	FI05257	SHUT-OFF COCK	1
16.	FI05213	PLUG	1
17.	KE53422	SPRING	1
18.	FA05002-4	“O” RING	1
19.	***GAS ORIFICES***:		
	KE53403-8	NATURAL GAS - SEA LEVEL UP TO 2000', 40 GALLON KETTLES	1
	KE53403-5	PROPANE GAS - SEA LEVEL UP TO 2000', 40 GALLON KETTLES	1
	KE53403-6	NATURAL GAS - SEA LEVEL UP TO 2000', 60 - 100 GALLON KETTLES	1
	KE53403-7	PROPANE GAS - SEA LEVEL UP TO 2000', 60 - 100 GALLON KETTLES	1
	KE53403-8	NATURAL GAS - 2000' UP TO 4000', 40 GALLON KETTLES	1
	KE53403-9	PROPANE GAS - 2000' UP TO 4000', 40 GALLON KETTLES	1
	KE53403-10	NATURAL GAS - 2000' UP TO 4000', 60 - 100 GALLON KETTLES	1
	KE53403-11	PROPANE GAS - 2000' TO 4000', 60 - 100 GALLON KETTLES	1
	KE53403-12	NATURAL GAS - 4000' UP TO 6000', 40 GALLON KETTLES	1
	KE53403-13	PROPANE GAS - 4000' UP TO 6000', 40 GALLON KETTLES	1
	KE53403-10	NATURAL GAS - 4000' UP TO 6000', 60 - 100 GALLON KETTLES	1
	KE53403-14	PROPANE GAS - 4000' UP TO 6000', 60 - 100 GALLON KETTLES	1
20.	FA05002-29	“O” RING	1
21.	FI05226-4	NIPPLE, 1/2" NPT, 5 5/16" LONG	1
22.	FI00073	UNION, 1/2"	1
23.	FI00133	ELBOW, 1/2", STREET	1
24.	KE93909	STRIP, TO HOLD BLOWER DOWN	1
25.	FI00040-1	ELBOW, 1/2"	1
26.	FI00579	NIPPLE, 1/2" NPT, 4" LONG, KGL-60-T	1
	FI05226-2	NIPPLE, 1/2" NPT, 4" LONG, KGL-80-T	1
27.	KE55004-3	RETAINING PLATE	1
28.	FI00573	NIPPLE, 1/2" NPT, 1 1/8" LONG	1
29.	FI05231	BUSHING, 3/4 - 1/2" NPT FLUSH, BLACK IRON	1
30.	F01518-1	GAS SHUT-OFF VALVE, 3/4" (NOT FOR FRENCH CE KETTLES)	1
31.	FI05226	NIPPLE, 1/2" NPT, 8" LONG	1
32.	FI05222	SWIVEL ELBOW	1
33.	FI05223	SPECIAL NIPPLE	1
34.	KE02053	GAS VALVE ASSEMBLY	1
35.	KE53390	BRACKET FOR GAS VALVE	1
36.	FI00607	NIPPLE, 3/4" NPT, 1 1/2" LONG	1
37.	KE01500-5	BURNER, 40 GALLON KETTLES, 140,000 BTU	1
	KE01500-1	BURNER, 60-100 GALLON KETTLES, 190,000 BTU	1
38.	KE53397	GASKET, BURNER	1
39.	FI05231	ADAPTOR	1
40.	KE601085	COVER FOR GAS VALVE	1
41.	RB018151	GASKET FOR COVER	1
42.	KE601081	BRACKET	1

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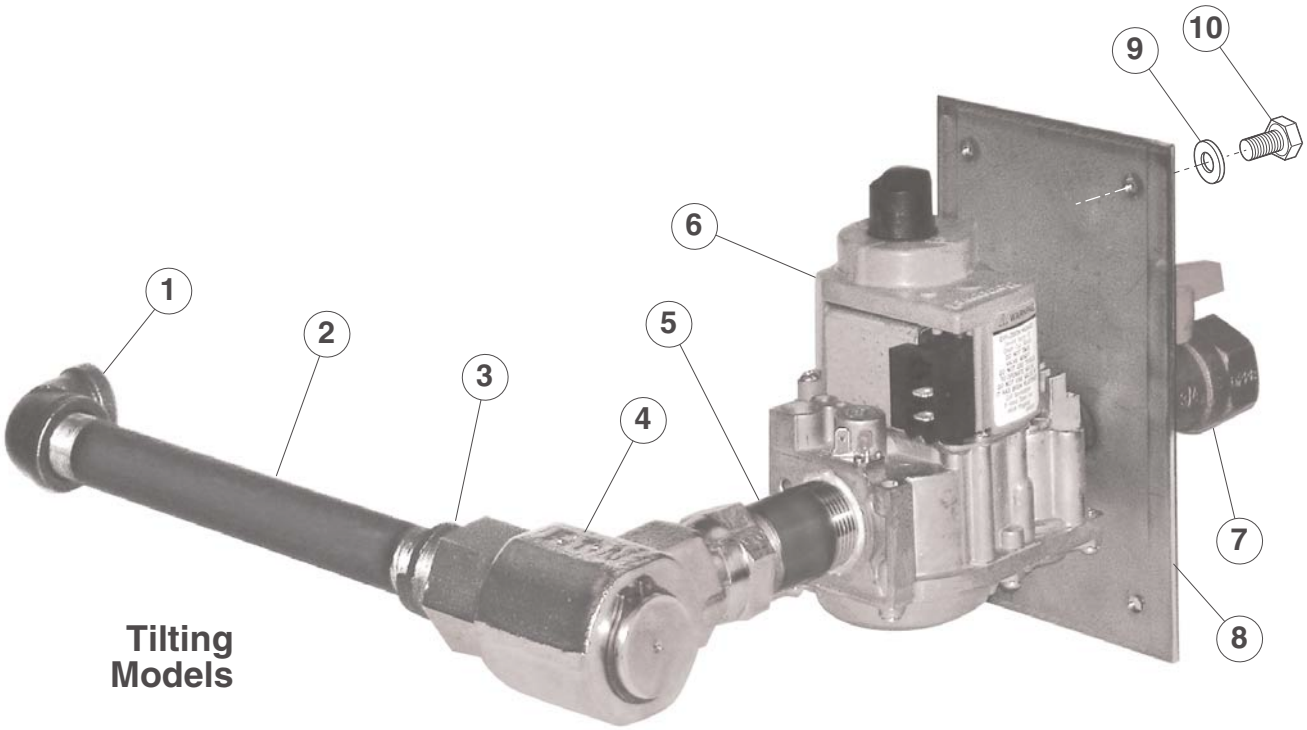
GAS CONTROL ASSEMBLY

(for units built after February 2005)



1.	FI00040-1	ELBOW, 1/2"	1
2.	FI05226	NIPPLE, 1/2" NPT, 8" LONG	1
3.	FI05231	ADAPTOR	1
4.	FI05222	SWIVEL ELBOW	1
5.	FI05223	SPECIAL NIPPLE	1
6.	KE55240R	GAS VALVE	1
7.	F015	GAS SHUT-OFF VALVE, 3/4"	1
8.	KE000960	NIPPLE PLATE WELDMENT	1
9.	FA30505-1	WASHER, 1/4"	4
10.	FA11256	HEX BOLT, 1/4-20 X 1/2, 18-8 SS	4

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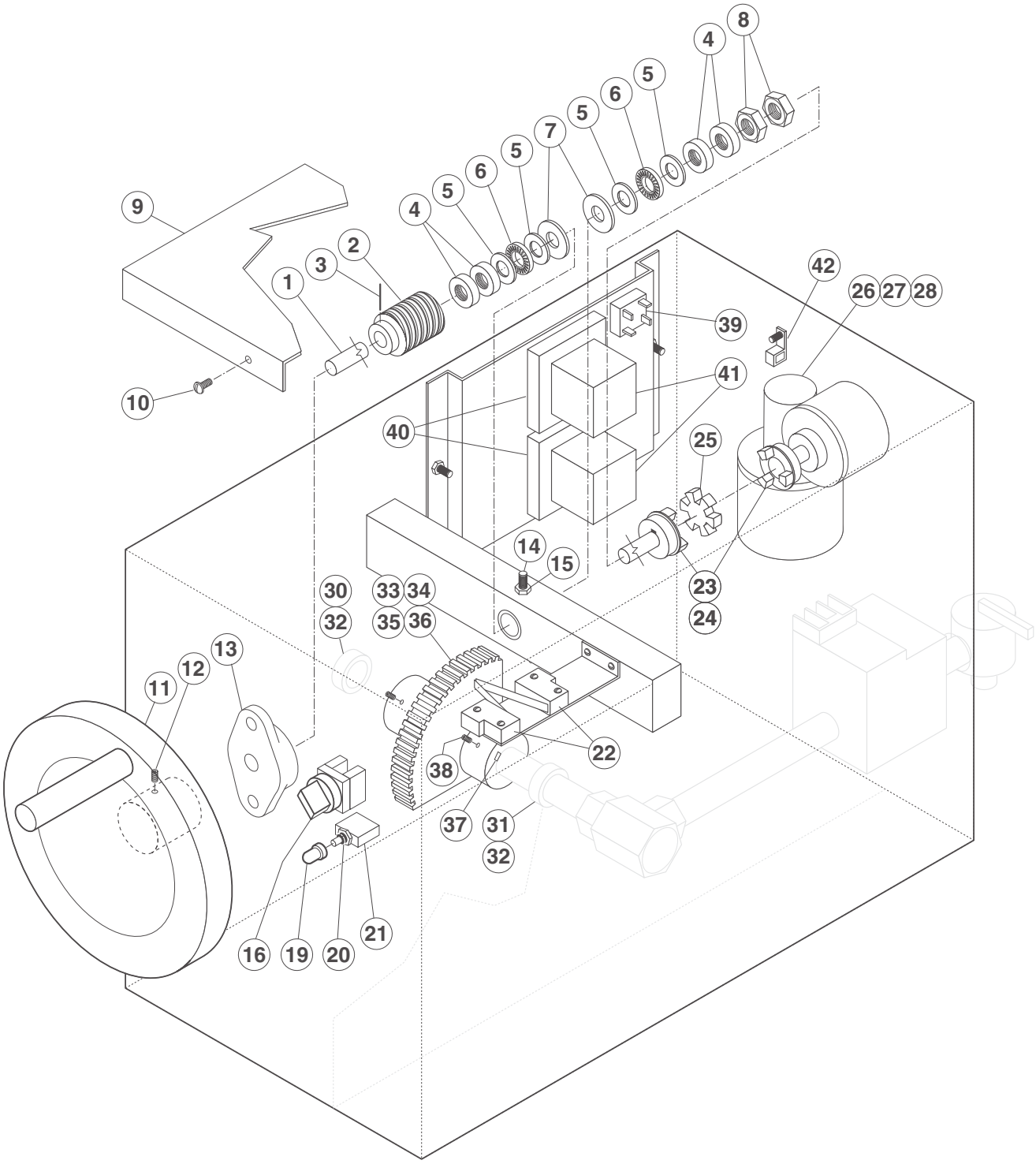
GEARBOX ASSEMBLY



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GEARBOX ASSEMBLY

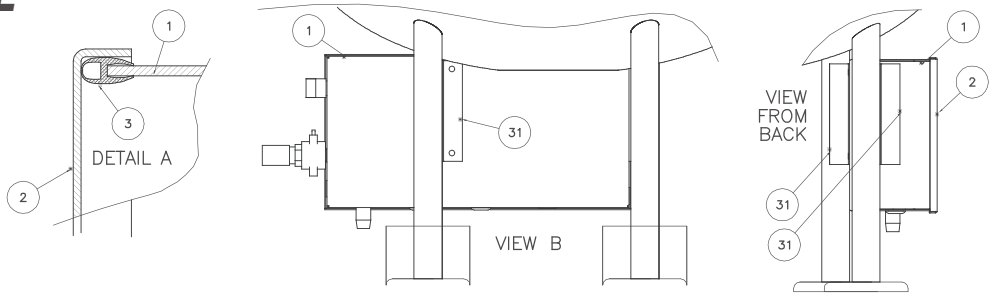
ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	KE52836-2	TILT SHAFT	1
2.	KE50315	WORM	1
3.	FA95005	TENSION PIN	1
4.	KE52193	THRUST BEARING SPACER	2
5.	KE52192	THRUST WASHER	4
6.	KE52191	ROLLER BEARING	2
7.	FA30088	WASHER	2
8.	FA95008	JAM NUTS	2
9.	KE55057-4	LID FOR GEARBOX	1
10.	FA95062	PAN HD. PHILLIPS SCREW	2
11.	KE00508	HANDWHEEL ASSEMBLY	1
12.	FA19501	HANDWHEEL ALLEN SCREW, HEX SOCKET	2
13.	KE51730	TILT SHAFT BEARING	4
14.	FA19177	HEX SOCKET SET SCREW 5/16-24 X 1/2	1
15.	FA20047	JAM NUT 5/16-24	1
16.	KE003209-11	Complete Switch	1
	KE603208-4	Momentary Switch Activator***	1
	KE603208-7	Contact Section Holder, Latch***	1
	KE603208-9	Contact Block***	4
	***NOTE: for units built prior to Dec. 2006 order Complete Switch KE003209-11		
19.	KE50580	WATER RESISTANT BOOT	1
20.	FA00012	"O" RING, CIRCUIT BREAKER	1
21.	KE50579-1	CIRCUIT BREAKER	1
22.	KE51007	MICRO SWITCH	2
	FA10139	MACHINE SCREW #6-32 X 1" LG	4
	KE50498	MICRO SWITCH INSULATION	2
	FA32004	TOOTH LOCK WASHER #6	4
23.	KE50582	CPLG. ONTARIO BELTING #G-100 5/8 BORE	2
24.	FA95014	SQUARE KEY 3/16 X 3/16 X 1" LG	1
25.	KE50583	RUBBER INSERT, ONTARIO BELTING "BUNA N"	1
26.	KE52832-1	MOTOR	1
27.	FA10487	HEX HD SCREW 1/4-20 X 1" LG	4
28.	FA31008	SPLIT LOCKWASHER 1/4" DIA	4
29.	FA20026	HEX NUT 1/4 - 20	4
30.	KE517112	LEFT HAND BEARING	1
31.	KE517111	RIGHT HAND BEARING	1
32.	KE51712	GREASE NIPPLE	2
33.	KE01889	MICRO SWITCH TRIGGER/WORM GEAR WELDMENT	1
34.	FA10772	SOCKET HD. CAP SCREW	2
35.	FA20048	JAM NUT	2
36.	FA95050	RETAINING RING	1
37.	FA95055-1	SQUARE KEY	1
38.	FA19201	HEX SOCKET SET SCREW 3/8-24	1
39.	KE50581	BRIDGE RECTIFIER	1
40.	KE54535	EDGE CONNECTOR (11 PIN)	2
41.	KE50753-10	RELAY	2
42.	KE50473	GROUND LUG	1

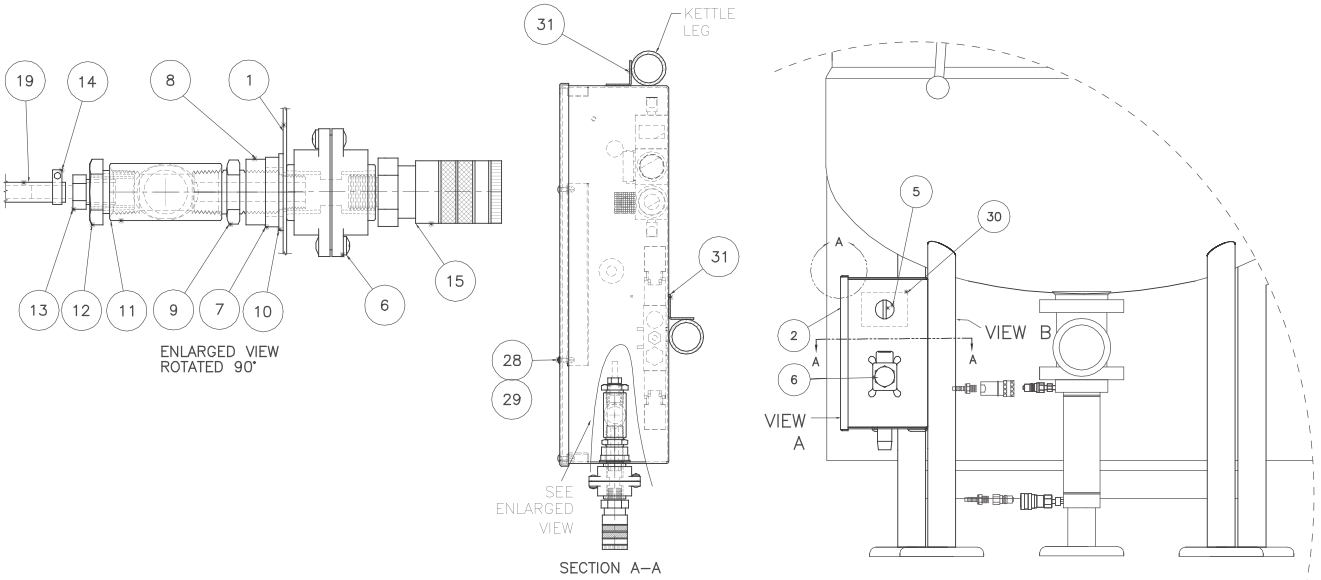
KIROSKAY

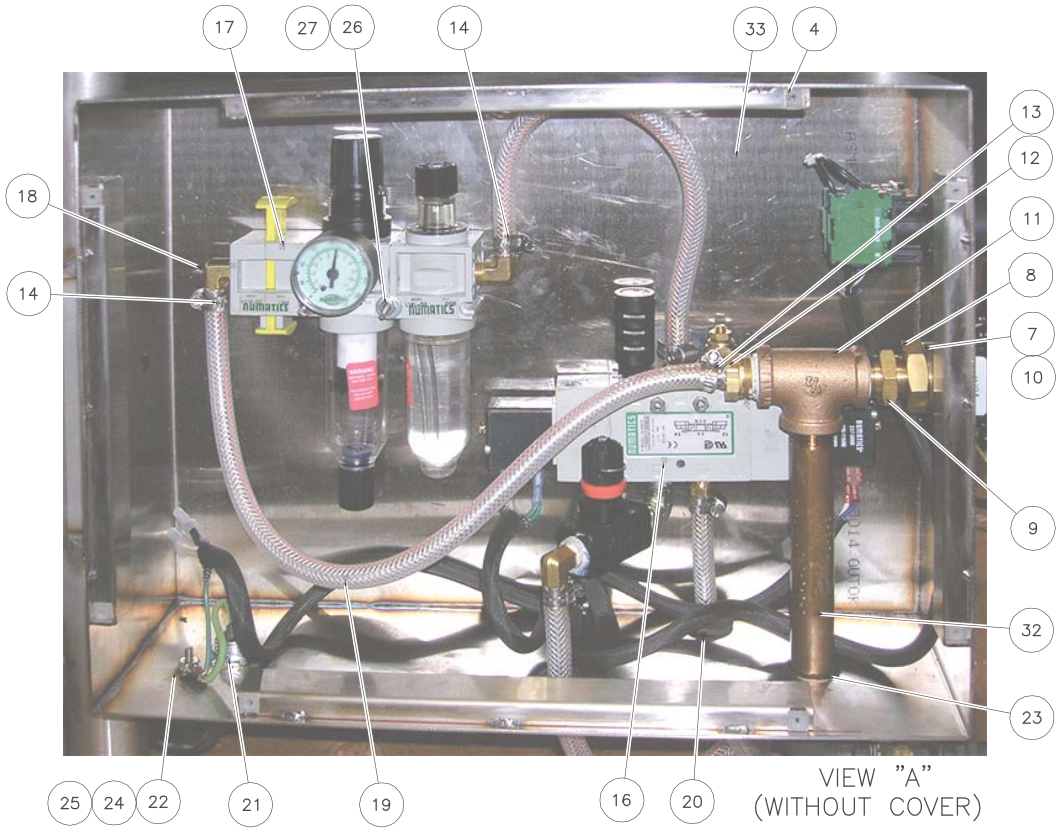
PNEUMATIC BOX ASSEMBLY

(FOR OPTIONAL FLUSH PISTON VALVE)

(USED AFTER 2003)







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PNEUMATIC BOX ASSEMBLY
(FOR OPTIONAL FLUSH PISTON VALVE)

(USED AFTER 2003)

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	KE003050	PNEUMATIC BOX WLD'T; KGL/T	1
2.	KE602957	COVER; PNEUMATIC BOX	1
3.	KE54846-9	GASKET;PNEUMATIC BOX	1
4.	FA95074	ANCHOR NUT; NYLON	8
5.	KE01812-1	(USE KE003209-9 SWITCH)7	1
	KE003209-9	SWITCH; ON/OFF/ON	1
6.	KE601601	SLIDE VALVE; PNEUMATICS	1
7.	KE602960	SPACER	1
8.	KE52697	LOCKNUT; 1/2" NPS (KDT)	1
9.	KE601602	AIR FITTING; PNEUMATICS	1
10.	FA32500	LOCKWASHER; 7/8" INT. TOOTH	1
11.	KE600814-1	TEE; 1/2" BRASS ANSI B16.15	1
12.	FI00351	BUSHING; 1/2" X 1/4" HEX BRASS	1
13.	FI05317-2	HOSE BARB; 1/4 X 1/4	1
14.	FI05220-1	HOSE CLAMP; MAH-4	3
15.	KE601603	QUICK CONNECT; MCMASTER	1
16.	KE02292-1	AIR SOLENOID ASS'Y; FPVA-3	1
17.	KE02369	FILTER-REGULATOR ASS'Y.	1
18.	FI05318	ELBOW; HOSE BARB 90D	2
19.	KE532176	HOSE; 1/4 ID, 12.5"	1
20.	KE50555-3	RUBBER GROMMET;13/16 HOLE	2
21.	KE51238-1	CONNECTOR; 1/2" 2 SCREWS	1
22.	KE50473	GROUND LUG; ILSCO #SLU-35	1
23.	KE55004-3	RETAINING PLATE; KGL/-T	1
24.	FA21006	HEX NUT; 10-24 18-8 S.S.	1
25.	WC101655	WASHER; FLAT #10 S.S	1
26.	FA21002	HEX NUT; #6-32 18-8 S.S.	4
27.	FA32004	LOCKWASHER; #6 EXT. TOOTH	4
28.	FA11091	SCREW;PHILIPS 8-32 X 3/8"L	8
29.	KE55242	SEALING WASHER	8
30.	KE95481-5	LABEL; PRODUCT DISCHARGE	1
31.	KE602071	ANGLE	2
32.	N0440B4	NIPPLE;1/2 X 4 BRASS	1
33.	KE55232	WIRING DIAG.; FPVA-3	1

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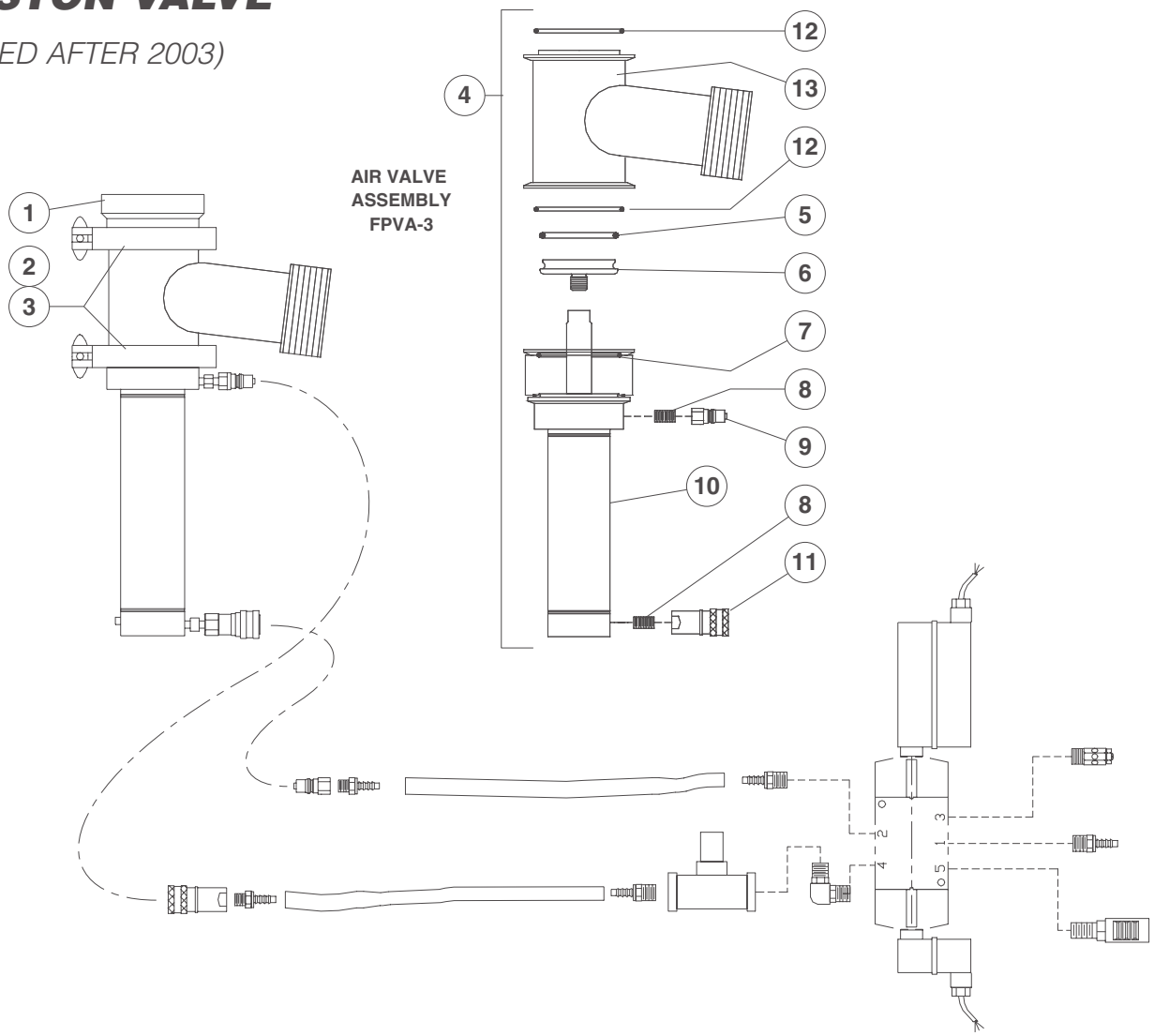
OPTIONAL FLUSH PISTON VALVE

(USED AFTER 2003)



ITEM ON.	*PART NO.*	*DESCRIPTION*	*QTY.*
1.	KE55210	WELD RING, KETTLE BOTTOM OUTLET	1
2.	FI05144-3	SANI CLAMP, 3”	2
3.	KE52154-4	GASKET, SANI CLAMP, 3”	2
4.	KE02291	COMPLETE ACTUATOR AND DISCHARGE VALVE ASSEMBLY *INCLUDES PARTS 5. - 13.*	1
5.	KE55248	BUNA-N O-RING	1
6.	KE55249	REPLACEABLE S.S. PLUNGER HEAD	1
7.	KE55250	BUNA-N O-RING	1
8.	KE55251	1/8 NPT S.S. HYDRAULIC CLOSE NIPPLE	2
9.	KE55252	MALE S.S. QUICK DISCONNECT	1
10.	KE55253	AIR OPERATED CYLINDER	1
11.	KE55254	FEMALE S.S. QUICK DISCONNECT	1
12.	KE55255	BUNA-N O-RING	2
13.	KE55256	FEMALE S.S. QUICK DISCONNECT	1

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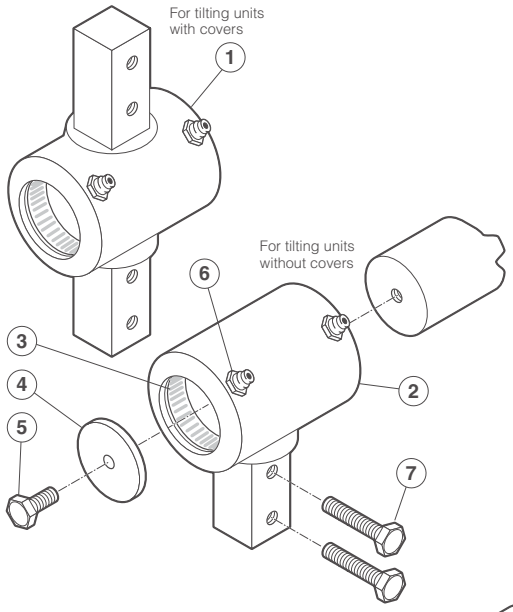
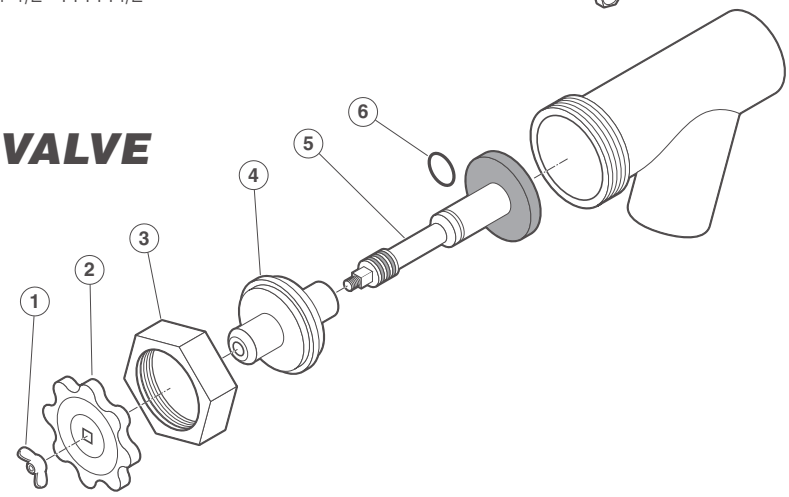
TRUNNION ASSEMBLY

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	KE00354	TRUNNION BEARING ASSEMBLY (INCLUDES PART # 3 & 6)	1
2.	KE00351	TRUNNION BEARING ASSEMBLY (INCLUDES PART # 3 & 6)	1
3.	KE51711	ROLLER BEARING	2
4.	KE51571-1	SPHERICAL WASHER	1
5.	FA95081-3	BOLT, 5/16-18 X 1/2"	1
6.	KE51886	GREASE NIPPLE	2
7.	FA95027	MODIFIED BOLT, 5/16-18 X 1 1/2"	4/2



TANGENT DRAW-OFF VALVE



ITEM NO.	PART NO.	DESCRIPTION	QTY.
Complete Valve	KE50972-B	2” DRAW-OFF ASSEMBLY (TD-2)	1
	KE50973	3” DRAW-OFF ASSEMBLY (TD-3)	1
	KE02044-2	2” DRAW-OFF ASSEMBLY (TD-2A with ACME THREAD)	1
	KE02044-4	3” DRAW-OFF ASSEMBLY (TD-3A with ACME THREAD)	1
1.	FA95049	WING NUT, TD-2	1
	FA21050	ACCORN NUT, TD-2	1
	FA21501-1	ACCORN NUT, TD-3	1
2.	KE52755	KNOB, TD-2	1
	SE50018	KNOB, TD-3	1
3.	FI05180-1	HEX NUT, TD-2	1
	FI05180-2	HEX NUT, TD-3	1
4.	KE52753	RETAINER, TD-2	1
	SE50013	RETAINER, TD-3	1
5.	KE52752	PISTON, TD-2	1
	SE50010	PISTON, TD-3	1
6.	FA05002-24	"O" RING, TD-2	1
	FA05002-38	"O" RING, TD-3	1

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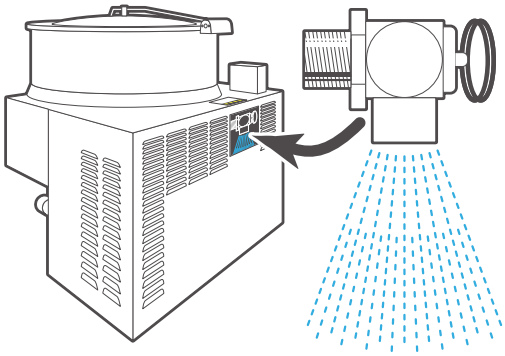
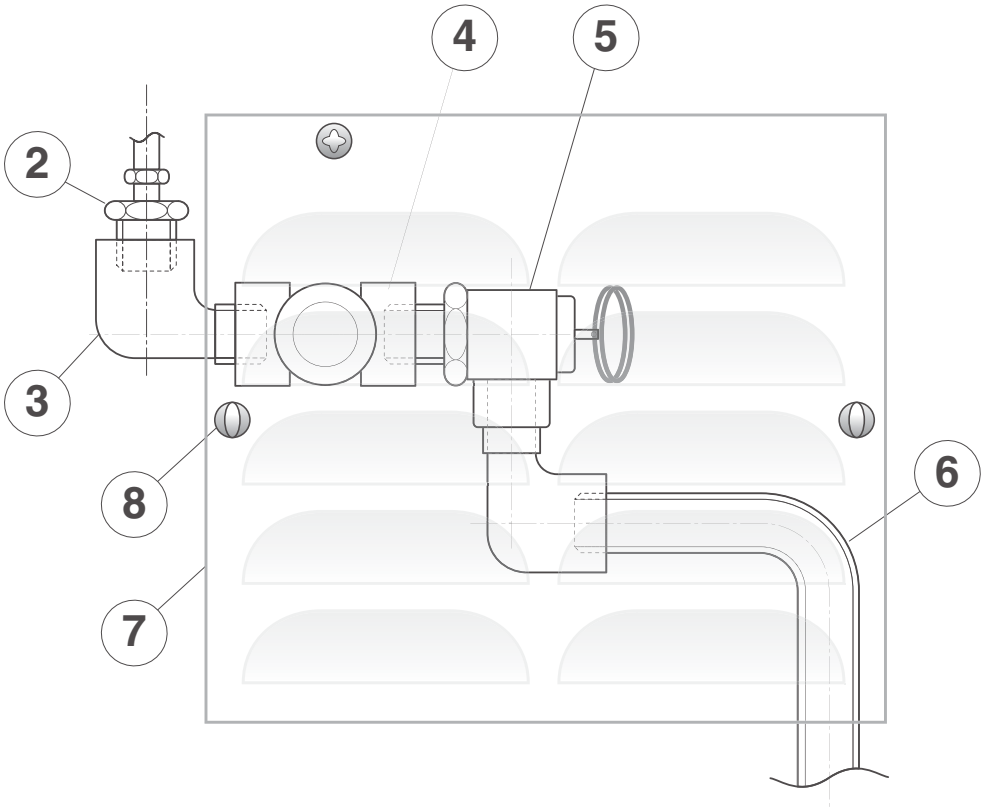
PRESSURE RELIEF ASSEMBLY





ITEM NO.	PART NO.	DESCRIPTION	QTY.
		PRESSURE RELIEF VALVE ASSEMBLIES	
1.	KE01450	FOR ASME KETTLES (INCLUDES #2-6)	1
	KE01450-1	FOR CE KETTLES (INCLUDES #2-6)	1
2.	FA05049	MALE CONNECTOR, 1/2" PIPE - 1/4" TUBE	1
3.	FI00151	STREET ELBOW, 90°, 1/2", BRASS	2
4.	FI00178	TEE, 1/2" FPT, BRASS	1
		SAFETY VALVES	
5.	KE54941-5	SAFETY VALVE, 50 PSI, 1/2" (NORTH AMERICA)	1
	KE54941-31	SAFETY VALVE, 50 PSI, 1/2", (EUROPE)	1
6.	KE54223	BLOW DOWN TUBE	1
7.	KE54864	ACCESS PANEL	1
8.	FA11518-4	THUMB SCREW, 10-32 X 1/2" L	1

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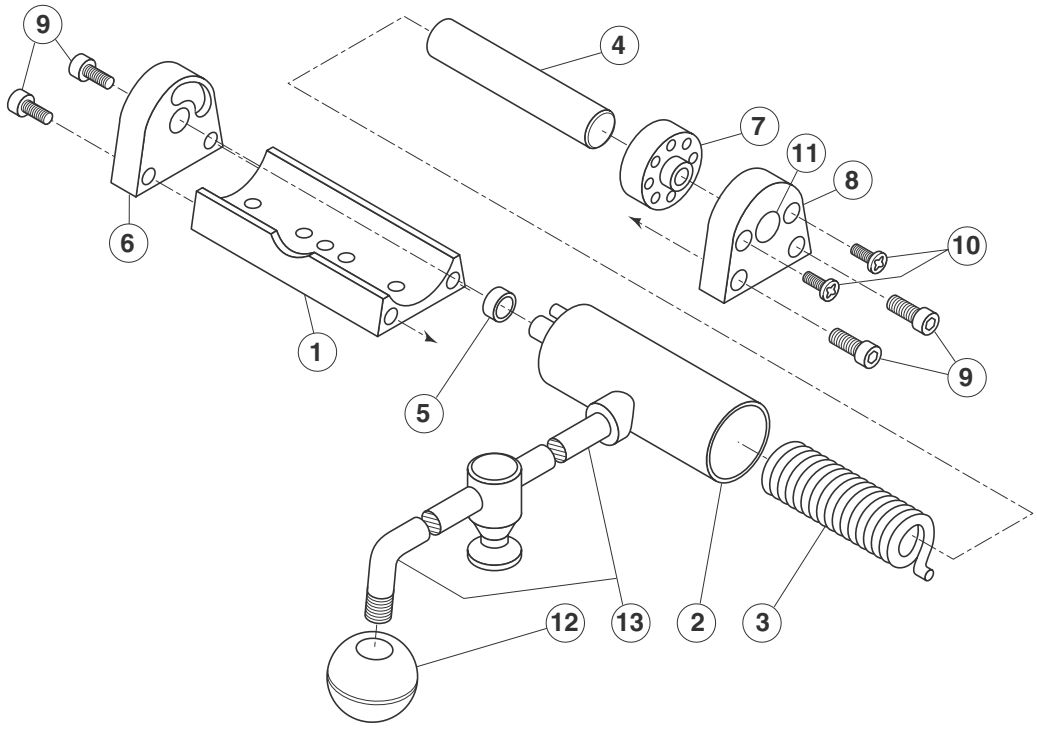
HINGE ASSEMBLY



ITEM NO.	PART NO.	DESCRIPTION	QTY.
		Hinge Assembly	
1. - 11	KE50597-1	25 - 40 Gallon, 20 Gallon Full Jacketed	1
	KE50597-2	60 - 80 Gallon, 30 - 40 Gallon Full Jacketed	1
	KE50597-3	100 - 150 Gallon, 60 - 100 Gallon Full Jacketed	1
	KE50597-4	KDM-60, KDM-60-T, Cook Tank	1
	KE50597-5	KDL-200, KDL-250, KDL-150-F, KDL-250-F	1
1.	KE50822	Hinge Base	1
2.	KE51217	Hinge Cylinder	1
3.	KE50121-2	**Hinge Spring Light** - for KE50597-2	1
	KE50121-1	**Hinge Spring Heavy** - for KE50597-1, KE50597-3, KE50597-4, KE50597-5,	1
4.	KE50823-1	Hinge Pin	1
5.	KE50824	Hinge Bearing	1
6.	KE50819-1	Hinge End Piece	1
7.	KE50820	Hinge Insert	1
8.	KE50819	Hinge End Piece	1
9.	FA11284	Screw, Socket Head	4
10.	FA11507	Cutting Screw,	2
11.	SK50418	Plug Button	1
12.	KE50151-2	Knob	1
13.		Cover Handle (specify model)	1

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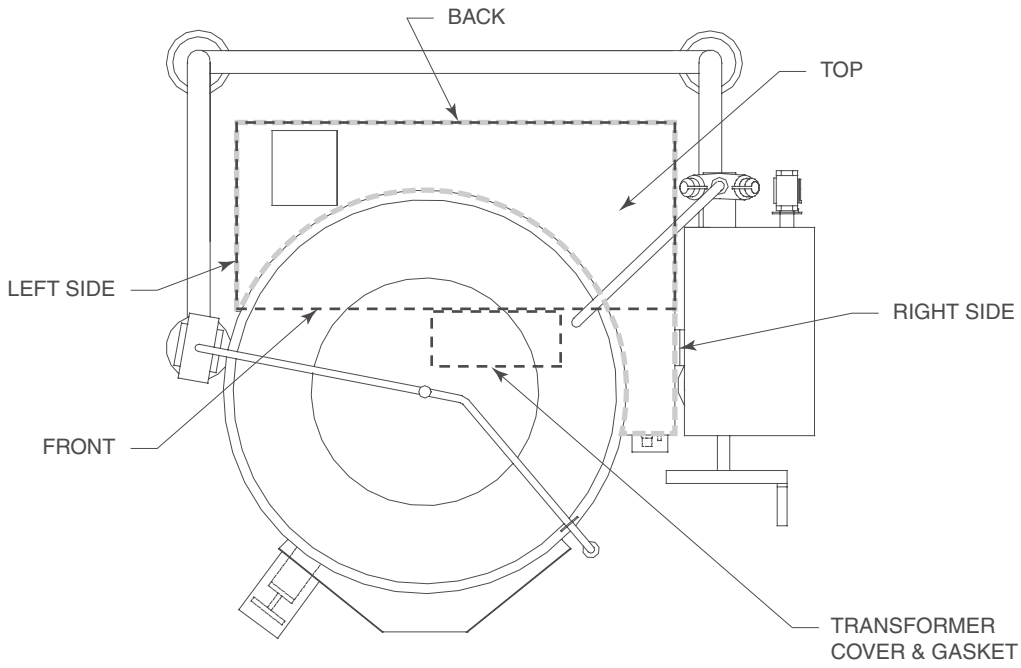
WRAP COVERS



KETTLE	TOP	FRONT	LEFT SIDE	RIGHT SIDE	BACK	WRAP COVER GASKET	TRANSFORMER COVER	TRANSFORMER COVER GASKET
KGL-40	KE01479	KE53483-4	KE54253	KE01432	KE02186-1	KE54419-1	KE53871	RB01851 (1ft.)
KGL-60	KE01479-1	KE53483-5	KE54253-1	KE01432-1	KE02186-2	KE54419-2	KE53871-1	RB01851 (1ft.)
KGL-80	KE01479-2	KE53483-6	KE54253-2	KE01432-2	KE02186-3	KE54419-3	KE53871-1	RB01851 (1ft.)
KGL-100	KE01479-3	KE53483-7	KE54253-3	KE01432-3	KE02186-4	KE54419-4	KE53871-1	RB01851 (1ft.)
KGL-40-T	KE01479	KE53483	KE54253	KE01432	KE02186-1	KE54419-1	KE53871-1	RB01851 (1ft.)
KGL-60-T	KE01479-1	KE53483-1	KE54253-1	KE01432-1	KE02186-2	KE54419-2	KE53871-1	RB01851 (1ft.)
KGL-80-T	KE01479-2	KE53483-2	KE54253-2	KE01432-2	KE02186-3	KE54419-3	KE53871-1	RB01851 (1ft.)
KGL-40-SH	KE01479-4	KE53483-6	KE54253-2	KE01432-2	KE02186-3	KE54419-3	KE53871-1	RB01851 (1ft.)
KGL-60-SH	KE01479-5	KE53483-7	KE54253-3	KE01432-3	KE02186-4	KE54419-4	KE53871-1	RB01851 (1ft.)
KGL-40-TSH	KE01479-4	KE53483-2	KE54253-2	KE01432-2	KE02186-3	KE54419-3	KE53871-1	RB01851 (1ft.)

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MAINTENANCE

INSPECTION AND MAINTENANCE CHECKLIST

Cleveland Range equipment requires little preventative maintenance. We do however provide the following chart as a guideline for inspection and maintenance to keep your unit functioning at 100%.

INSPECTION AND MAINTENANCE CHECKLIST

The following checks should be completed every six months or more frequently if unit is in a high volume facility.

WARNING: It is imperative that damaged seals be repaired immediately to prevent equipment failure and/or damage.

ITEM	CHECK
KETTLE CONSOLE COVER	Inspect gasket material for integrity. Replace if necessary. Insure all screws are in place and firmly holding down the cover. If not replace/tighten screws.
HAND WHEEL (hand tilt models only)	Check hand wheel for tightness. If loose tighten allen screw.
TILTING (tilting models only)	Check that kettle tilts smoothly. Grease as described in LUBRICATION PROCEDURE.
ON/OFF SWITCH/ TEMPERATURE CONTROL	Check for damage. Replace if necessary.
PRESSURE GAUGE	Check that the gauge does not have moisture on its inside face. Replace if moisture is present. Check that the gauge shows a vacuum (needle is well into the Green zone) when cold and shows between 25-40 psi when unit is hot. If not follow VACUUM LEAK TEST PROCEDURE.
PRESSURE RELIEF VALVE	Check pressure relief valve as described in PRESSURE RELIEF VALVE TESTING PROCEDURE.
TEMPERATURE CHECK	Following CALIBRATING PROCEDURE check the inner kettle surface temperature with a digital surface thermometer and adjust if required.
LUBRICATION	Grease trunnion housings and gear/worm assembly as recommended in LUBRICATION INSTRUCTIONS.
GEAR/WORM ASSEMBLY	Inspect for play. Tighten Allen screws if required.
SPRING ASSIST COVER	Check cover is tightly secured to handle and insure spring is holding cover up - adjust if required.

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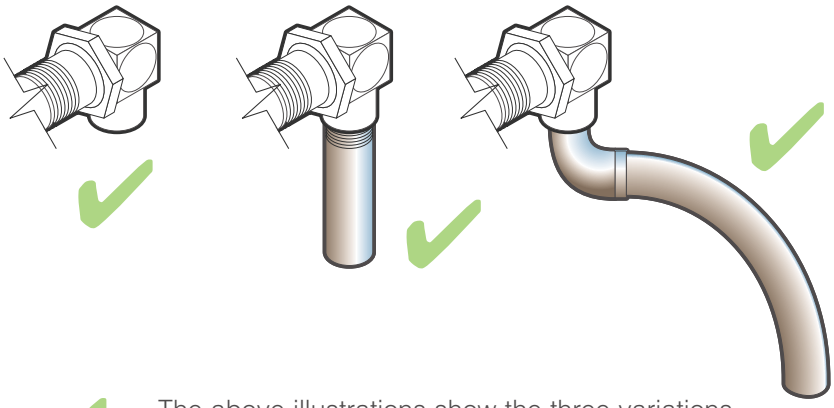
Kettle Safety Inspection Checklist

Just recently a competitor's steam jacketed kettle exploded causing serious personal injury and damage to a kitchen. In most cases these accidents are caused by poor maintenance and/or incorrect installation.

We at Cleveland would like to restate that regular inspection and maintenance of units is essential to obtain trouble free and safe operation of equipment. Inspections must include testing of the pressure relief valve and checks of the operating system to insure that it has not been altered.

***No safety features designed into the equipment should ever be tampered with**. Tampering with or bypassing controls is a very dangerous practice and unfortunately we have seen several cases of this. Following is a short list of the most common and the most dangerous alterations performed on kettles.*

SAFETY VALVE:



The above illustrations show the three variations of factory installed Safety Valves.

Any modifications are unacceptable.

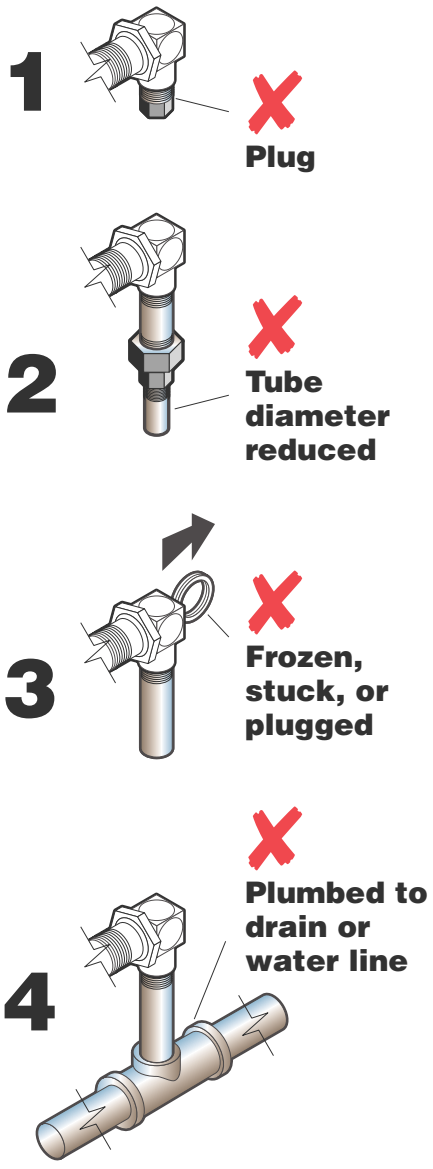
Incorrect Installations

1 Safety valve has plug threaded into the discharge opening preventing any steam from escaping.

2 Safety valve's tube diameter has been reduced.

3 Safety valve is sticking, frozen shut or plugged. To test, refer to Service Bulletin SE90038 rev. 2, "Pressure Relief Valve Periodic Testing".

4 Safety valve is plumbed to a drain or water line creating back pressure and reducing flow.



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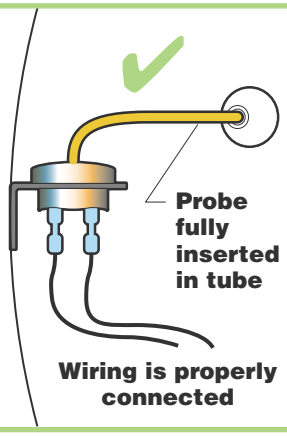
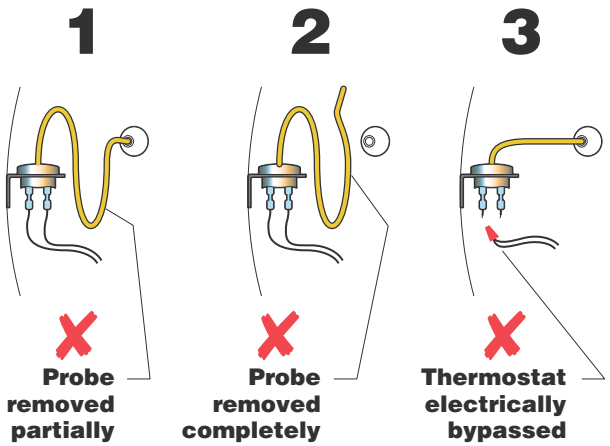
SAFETY THERMOSTAT:



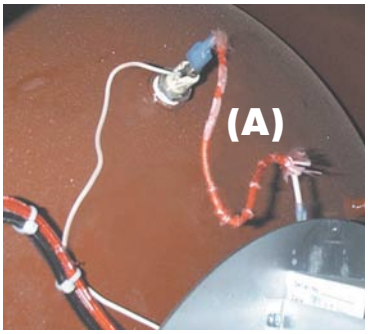


Incorrect Installations

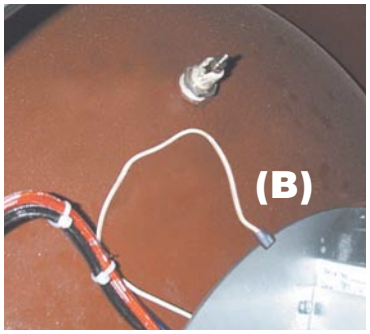
1. Safety thermostat probe is not completely inserted into tubing.
2. Safety thermostat probe is removed from tubing.
3. Safety thermostat electrical connection is bypassed.

Low Water Level Probe:

Probe properly attached

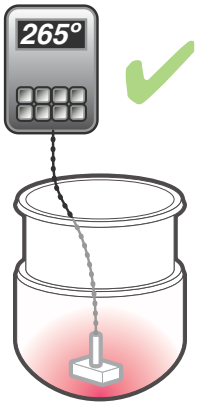


Probe bypassed by running (A) an additional wire



Probe bypassed by (B) grounding the connecting wire

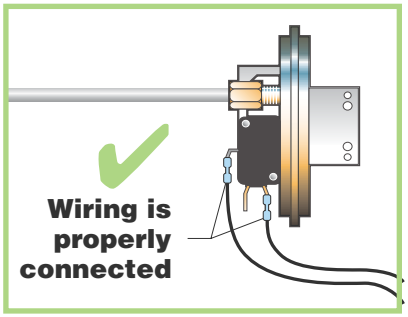
Operating Thermostat:



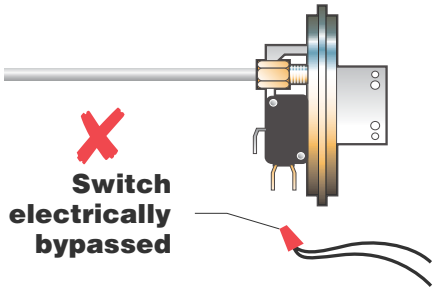
260° - 270° MAXIMUM KETTLE TEMPERATURE

If maximum temperature is not in this range (on empty kettle), refer to the "Calibrating Procedure" in the unit's Installation, Operation & Service Manual.

Gas Kettle Air Switch



Incorrect Installation



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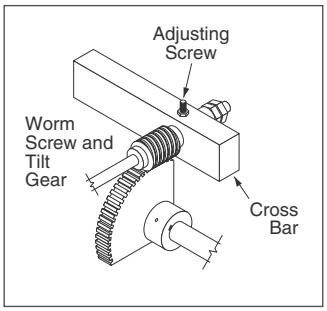
LUBRICATION PROCEDURE

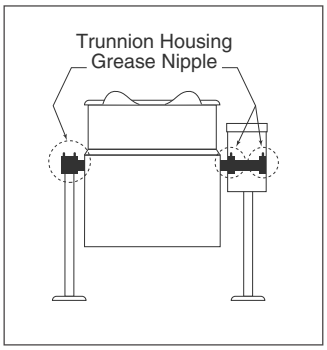
Lubricate the following parts every three months to insure smooth operation and reduce wear.



TRUNNION HOUSING, WORM SCREW AND TILT GEAR

These parts are accessed through the top cover of the console.

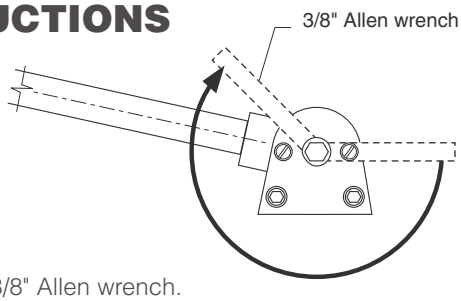
Apply grease to gear teeth. Check for excessive play and adjust with adjusting screw located on top of cross bar.



KETTLE TRUNNIONS

On the left hand side of the kettle there are two grease nipples on the top back portion of the trunnion housing. On the right hand side of the kettle you must remove the console cover to access the two grease nipples.

HINGE ADJUSTMENT INSTRUCTIONS



1. Insert 3/8" Allen wrench.
2. Turn clockwise to relieve tension on spring.
3. While tension is released remove one of the two slotted screws.
4. To prevent Allen wrench from springing back abruptly while the second slotted screw is removed, insert a pin (approximately 1/8") in the hole where the first slotted screw was removed from.
5. Remove second slotted screw.
6. While holding Allen wrench remove pin.
7. Turn Allen wrench clockwise to tighten or counter-clockwise to loosen tension to produce desired effect.
8. Re-insert pin in one of the two holes.
9. Tighten one slotted screw in the other hole (it may be necessary to turn Allen wrench slightly to align holes).
10. Remove pin and repeat step number 9 for other slotted screw.

TROUBLESHOOTING GUIDES

GENERAL

1. To turn the unit on, turn the switch to the on position.

   ■ Power is sent to primary side of the 120vac/16vac transformer.

   ■ Power is sent to the normally closed high limit.

   ■ From the high limit power is sent to the normally open contacts of the 12VDC relay and the L1 and L2 terminals of the ignition module.

2. From the secondary of the transformer 16VAC is sent to the controller.

   ■ Power is sent to the red LED (low water indicator light) from terminal 4 of the controller.

   ■ If the water probe is grounded through water the LED will go off.

   ■ If the water probe is not grounded the LED will remain on and the unit will not heat.

   ■ If the resistance of the thermistor is higher than the setting of the potentiometer(the unit is calling for heat) then 16VDC is sent to the coil of the relay and the green LED (heat indicator light)

   ■ The 12VDC relay will close until the unit reaches temperature

3. With the contacts of the relay closed, 120VAC is sent to the blower and primary coil of the 120VAC/24VAC transformer.

   ■ From the secondary of the 24VAC transformer power is sent to the normally open contacts of the air switch.

   ■ When the air from the blower closes the air switch, 24VAC is sent to the Th terminal of the ignition module.

4. With both 120VAC (at L1 and L2) and 24VAC (at Gnd and Th) to the ignition module then 120VAC will be sent to the surface igniter.

5. After the ignition module has been energized for 24 seconds the module will send 24VAC to the gas valve.

   ■ The gas will touch the hot igniter and ignite.

   ■ The kettle will build pressure until the controller is satisfied by the thermistor at the setting of the potentiometer.

   ■ The controller will then turn off the heat circuit until the temperature of the kettle is below the setting

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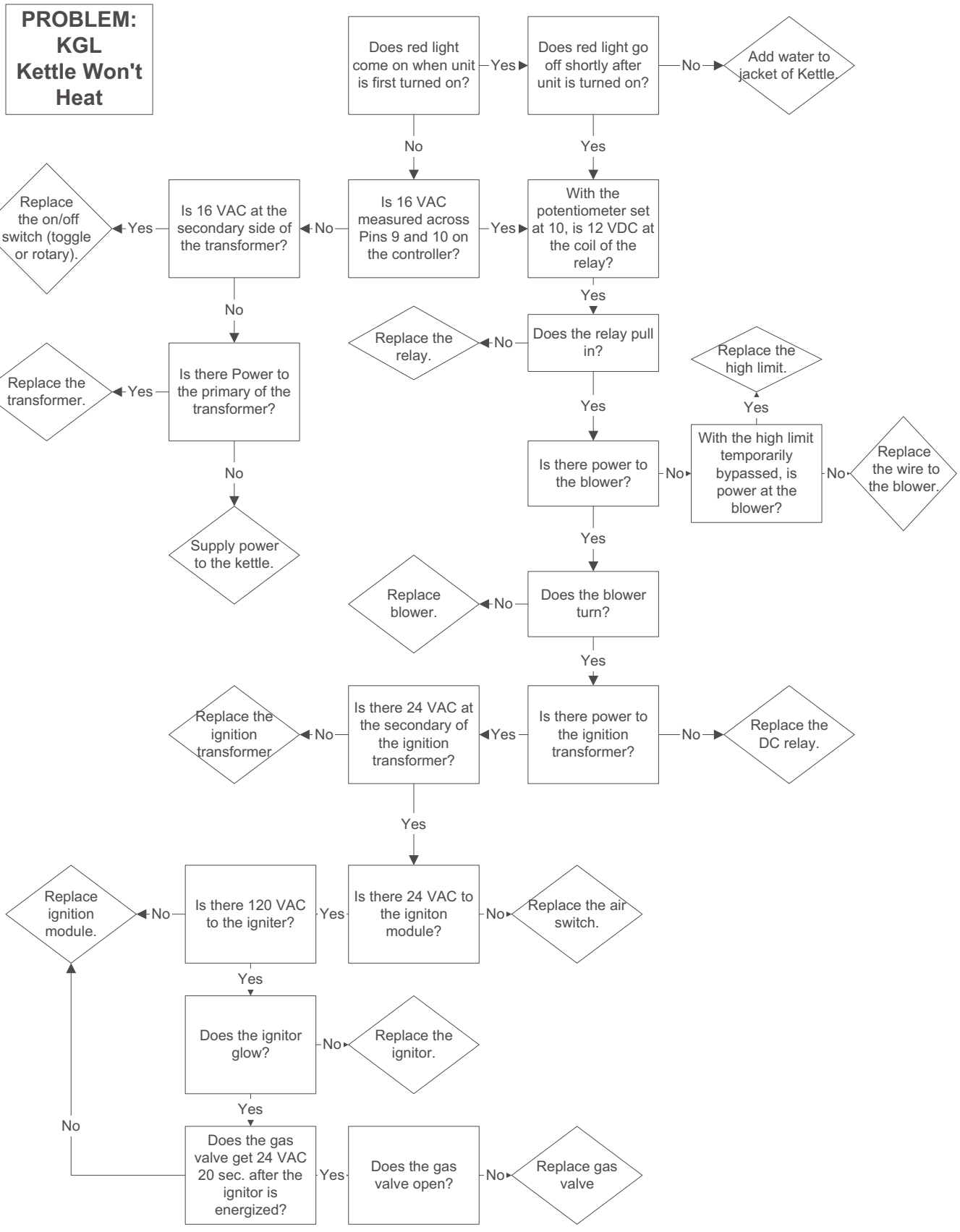
TROUBLESHOOTING GUIDES (continued)



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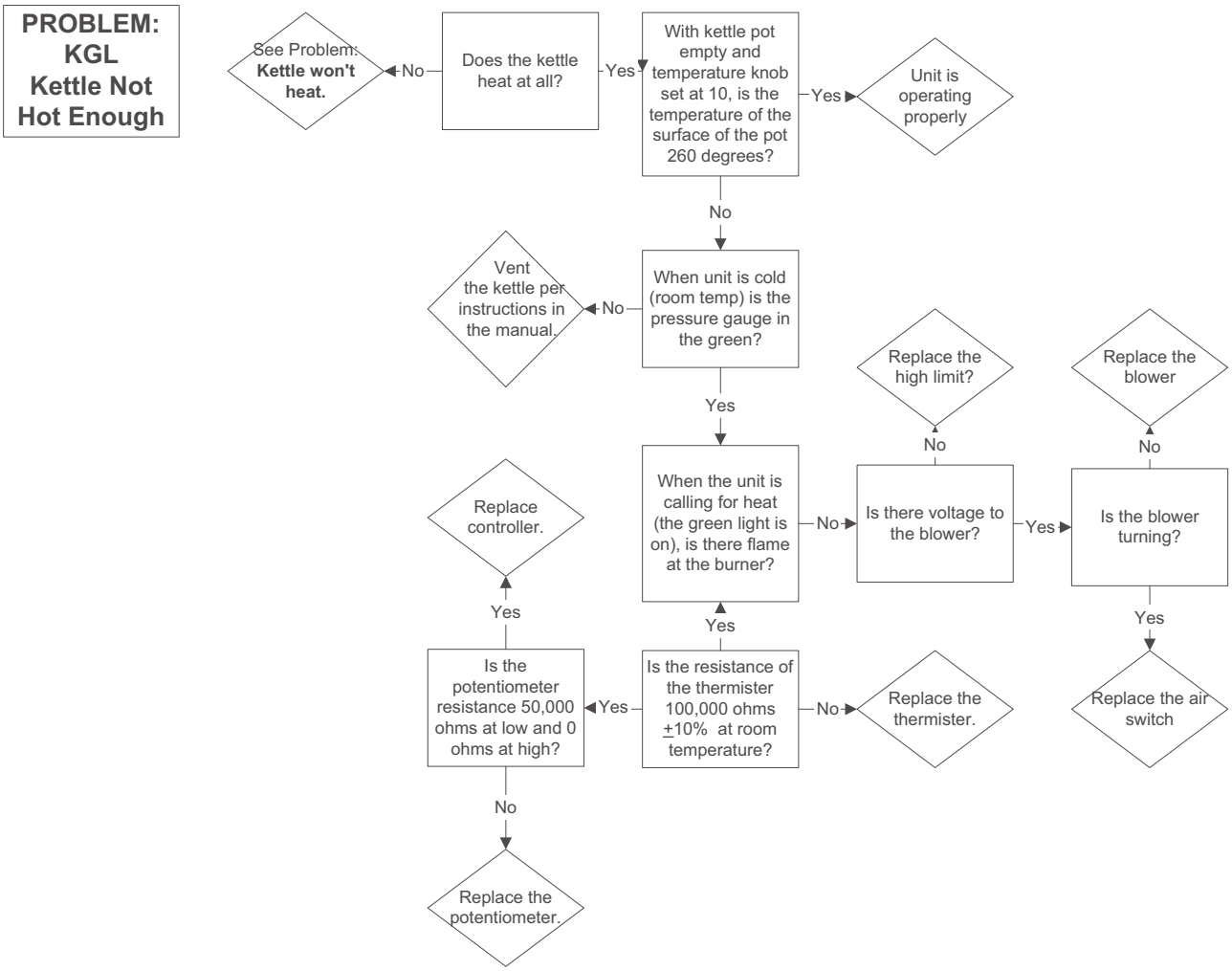
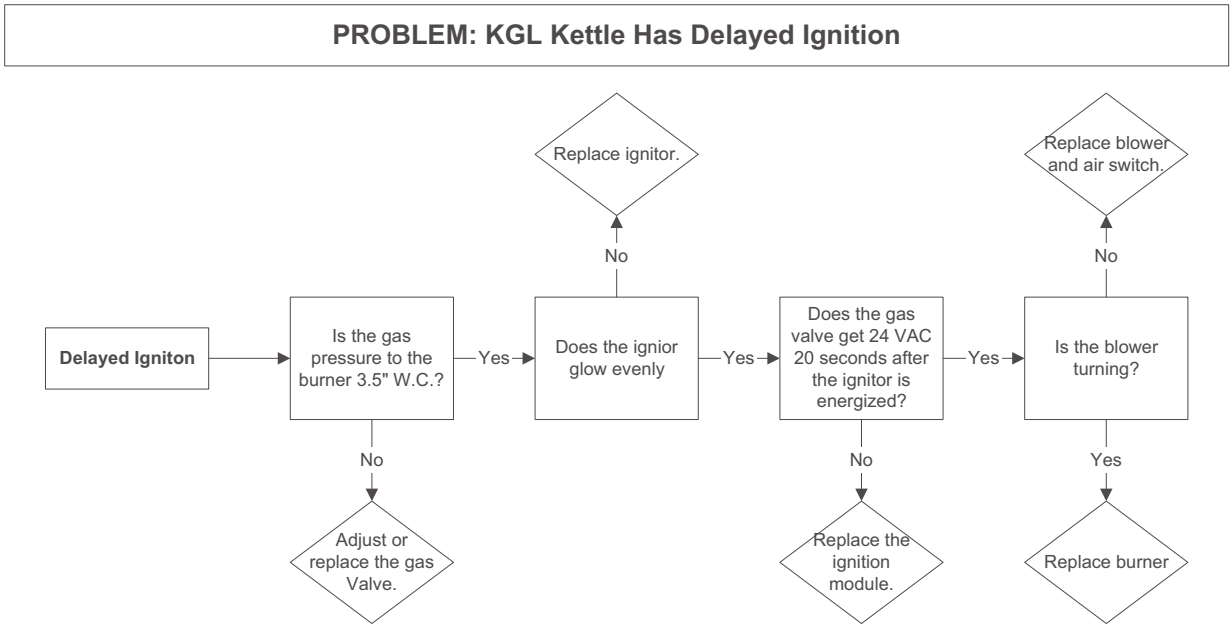
TROUBLESHOOTING GUIDES (continued)


PROBLEM: KGL Kettle Not Hot Enough
See Problem: Kettle won't heat.
No
Does the kettle heat at all?
Yes
With kettle pot empty and temperature knob set at 10, is the temperature of the surface of the pot 260 degrees?
Yes
Unit is operating properly
No
When unit is cold (room temp) is the pressure gauge in the green?
No
Vent the kettle per instructions in the manual.
Yes
When the unit is calling for heat (the green light is on), is there flame at the burner?
No
Is there voltage to the blower?
Yes
Is the blower turning?
Replace the high limit?
No
Replace the blower
No
Yes
Replace the air switch
Yes
Is the resistance of the thermister 100,000 ohms ±10% at room temperature?
No
Replace the thermister.
Yes
Is the potentiometer resistance 50,000 ohms at low and 0 ohms at high?
Yes
Replace controller.
No
Replace the potentiometer.



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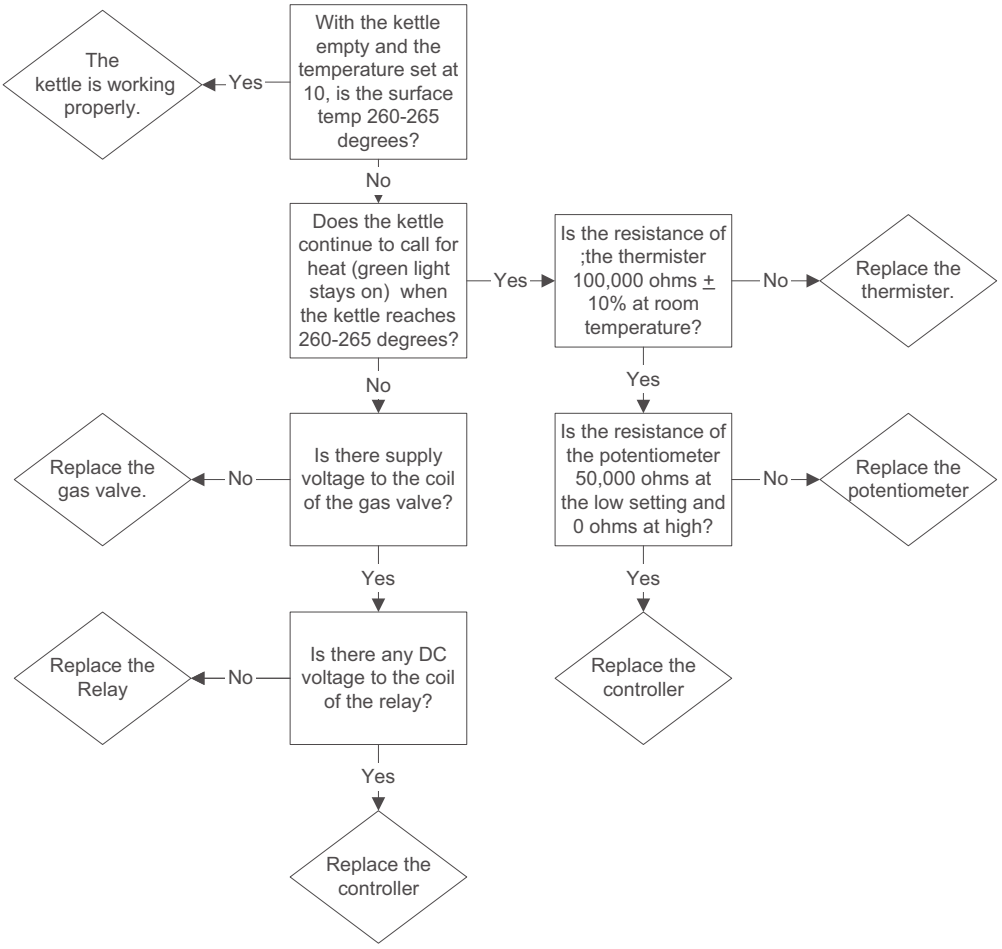
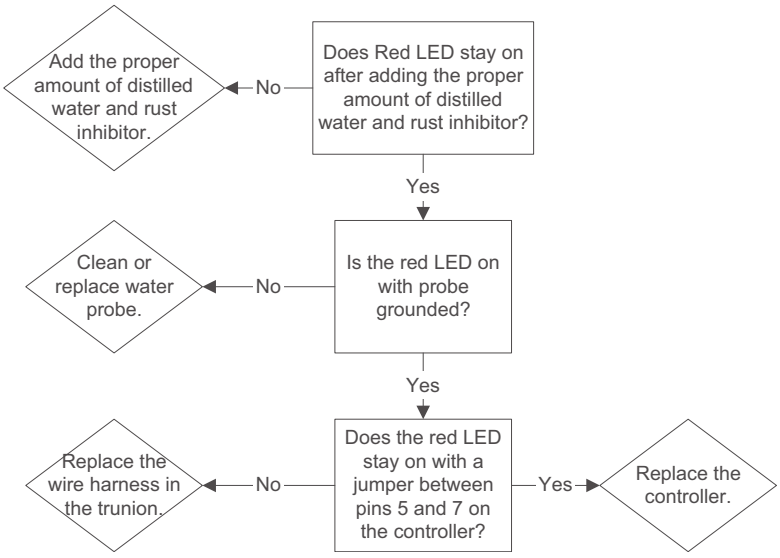
TROUBLESHOOTING GUIDES (continued)

PROBLEM: KGL Kettle Gets Too Hot


With the kettle empty and the temperature set at 10, is the surface temp 260-265 degrees?
Yes
The kettle is working properly.
No
Does the kettle continue to call for heat (green light stays on) when the kettle reaches 260-265 degrees?
Yes
Is the resistance of ;the thermister 100,000 ohms ± 10% at room temperature?
No
Replace the thermister.
Yes
Is the resistance of the potentiometer 50,000 ohms at the low setting and 0 ohms at high?
No
Replace the potentiometer
Yes
Replace the controller
No
Is there supply voltage to the coil of the gas valve?
Replace the gas valve.
Yes
Is there any DC voltage to the coil of the relay?
No
Replace the Relay
Yes
Replace the controller

PROBLEM: Red Add Water LED Stays On


Does Red LED stay on after adding the proper amount of distilled water and rust inhibitor?
No
Add the proper amount of distilled water and rust inhibitor.
Yes
Is the red LED on with probe grounded?
No
Clean or replace water probe.
Yes
Does the red LED stay on with a jumper between pins 5 and 7 on the controller?
Yes
Replace the controller.
No
Replace the wire harness in the trunion.

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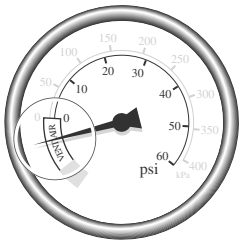
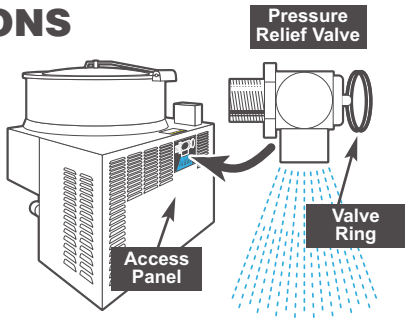
KETTLE VENTING INSTRUCTIONS



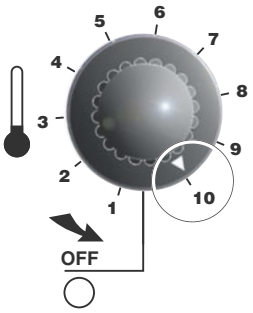


The following venting procedure should be followed when the Vacuum/Pressure Gauge needle is in the "VENT AIR" zone:

NOTE: Check for and eliminate leaks prior to venting (See REPAIRING LEAKS IN STEAM JACKETED KETTLE FITTINGS).

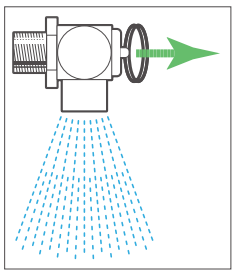
DANGER: PRESSURE RELIEF VALVE WILL EXHAUST HIGH TEMPERATURE STEAM. CONTACT WITH SKIN COULD RESULT IN SERIOUS BURNS. KEEP FACE, HANDS AND BODY CLEAR OF DISCHARGE.

DANGER: WORKING ON MACHINES WITH POWER COULD RESULT IN SEVERE ELECTRICAL SHOCK.

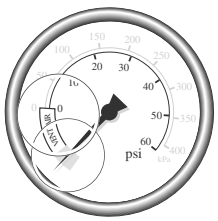


1. Remove Access Panel from back of main kettle console.
2. Turn kettle ON and set temperature control to **10**, heat the empty kettle until unit cycles off.
3. Vent kettle by pulling Valve Ring eight to fifteen times, holding valve open for two seconds each time.

NOTE: If unit cycles ON, stop venting and wait for kettle to cycle OFF before continuing.



4. Turn kettle OFF. Add cold water to kettle until its surface temperature is below 100°F. The pressure gauge needle should be in the green zone, indicating a vacuum in the kettle's jacket.



5. If needle is in the green zone then venting was successful. If not repeat procedure.

VACUUM LEAK TEST PROCEDURE

If the kettle will not hold vacuum, test for leaks at:

A. Water Level Probe.

B. Pressure Relief Valve/Pressure Gauge and connecting plumbing.

C. Boiler Drain Cap.

D. Sight Glass.

LEAK TEST PROCEDURE:

1. Heat kettle until unit cycles off.
2. Shut off power to the kettle at the fused disconnect switch.
3. Spread Bubble Type Leak Detector over suspected areas and watch closely for bubbles.
4. Repair areas as required.

REPAIRING LEAKS IN STEAM JACKETED KETTLE FITTINGS

If unit will not hold a vacuum the most likely cause is a leak at one of the fittings.

Often, the easiest way to eliminate a leak is reseal the suspect areas.

1. Water Level Probe

   Remove,clean threads, apply teflon thread sealant and reinstall.

2. Pressure Relief Valve

   A/ Inspect for signs of leaks. Replace if required.

   B/ Remove, clean threads, apply teflon thread sealant and reinstall.

3. Pressure Gauge

   A/ Inspect face of gauge. If it contains moisture on the inside of face replace.

   B/ Check tightness of plumbing connection to pressure Gauge.

3. Sight Glass

   A/ Check tightness of sight glass.

   B/ Replace "O" ring if required.

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RESERVOIR FILL PROCEDURES

WARNING: IMPROPER REFILLING OF KETTLE JACKET WILL RESULT IN IRREVERSIBLE DAMAGE TO UNIT.

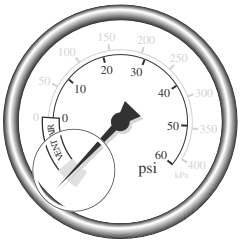
The kettle's water level must be maintained at the proper level. Under normal operating conditions, the sealed water reservoir should never require the addition of water.

If the red "low water" light comes on during use (while the kettle is in an upright position), the water level has reached a critically low level. The low water protection control has automatically shut off the gas burner. The following procedure must be completed before further use:

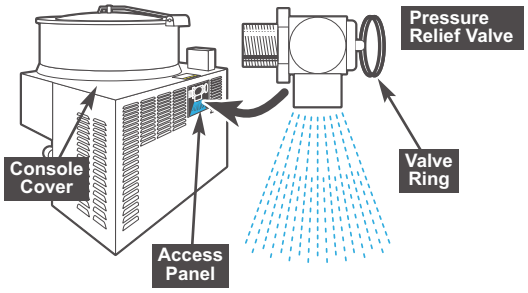
DANGER: PRESSURE RELIEF VALVE WILL EXHAUST HIGH TEMPERATURE STEAM. CONTACT WITH SKIN COULD RESULT IN SERIOUS BURNS. KEEP FACE, HANDS AND BODY CLEAR OF DISCHARGE.

DANGER: WORKING ON MACHINES WITH POWER COULD RESULT IN SEVERE ELECTRICAL SHOCK.

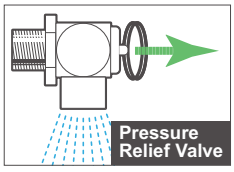
NOTE: Have a qualified service technician repair the leakage problem and add water to the unit. Ensure that the red "low water" light is on when the kettle is upright. On tilting kettles, it is normal for the red light to come on when the kettle is in a tilted position.



1. Ensure kettle is at room temperature and pressure gauge showing zero or less pressure.
2. Shut off power to the kettle at the fused disconnect switch.



3. Remove Console Cover and Access Panel.



Important- Pull ring on Pressure Relief Valve prior to removal to insure vessel is not pressurized.

4. Pull Pressure Relief Valve Ring open to insure vessel is not pressurized.
5. Remove 1/4" copper tubing and reducer bushing.
6. Add distilled water using a funnel if necessary. Fill the unit to the high level mark on the Sight Glass.
7. Apply a thread sealant (i.e. Teflon tape) to the reducer bushing threads and replace.
8. Replace Console Cover and Access Panel.
9. Restore power to unit at the fused disconnect switch.
10. The kettle must now be vented. (Refer to the KETTLE VENTING INSTRUCTIONS).

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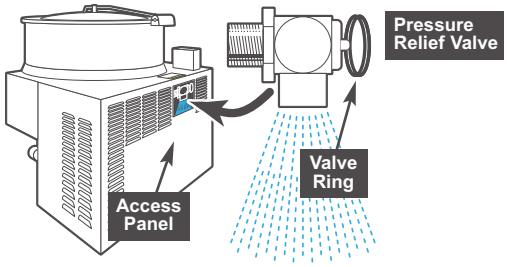
PRESSURE RELIEF VALVE PERIODIC TESTING



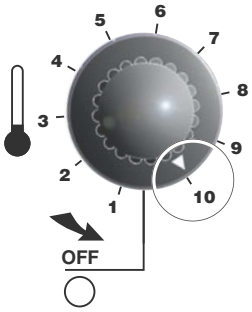
Most insurance agencies require periodic testing of pressure relief valves used on pressure vessels. This procedure will allow you to safely and quickly test your kettle's pressure relief valve. We recommend this test be performed twice a year.

DANGER: PRESSURE RELIEF VALVE WILL EXHAUST HIGH TEMPERATURE STEAM. CONTACT WITH SKIN COULD RESULT IN SERIOUS BURNS. KEEP FACE, HANDS AND BODY CLEAR OF DISCHARGE.

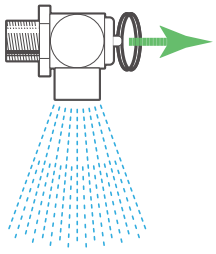
DANGER: WORKING ON MACHINES WITH POWER COULD RESULT IN SEVERE ELECTRICAL SHOCK.

NOTE: The following instruction is intended for use by qualified service personnel.

WARNING: Kettle surface will be hot and steam will be released during testing. Take necessary precautions including the use of gloves and eye protection to prevent personal injury.



1. With the kettle empty, set On-Off Switch/Temperature Control to "**10**" (Max.). Allow the kettle to heat until the unit cycles off.
2. Switch On-Off Switch/Temperature Control to "**0**" (Off) and disconnect main power at fused disconnect switch.
3. Remove Access Panel at back of main kettle console.



4. Pull Pressure Relief Valve Ring open for a maximum of one second. Repeat test three to four times. Each time the mechanism should move freely and be accompanied by a rapid escape of steam.

NOTES:

If valve appears to be sticking replace pressure relief valve.

If foreign material is discharged then drain kettle and replace pressure relief valve.

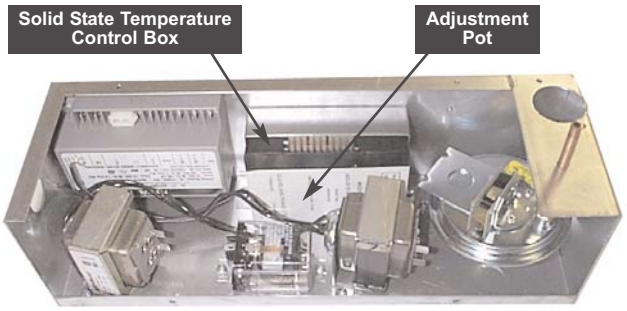
See KETTLE JACKET CLEANOUT AND PASSIVATION PROCEDURES for full instructions on the correct method for draining and refilling kettle jacket.

WARNING: Improper refilling of kettle jacket will result in irreversible damage to unit.

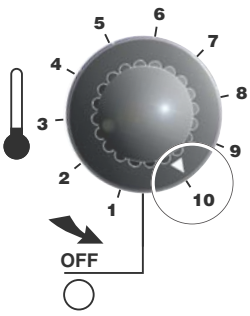
5. Replace Access Panel.

6. Reconnect main power at fused disconnect switch..

CALIBRATING PROCEDURE



1. Insure the unit has a vacuum before you begin calibrating procedures. If unit requires venting refer to KETTLE VENTING INSTRUCTIONS.



2. Set On-Off Switch/Temperature Control to "**10**" (Max.).
3. Allow the unit to cycle twice.
4. Check temperature of the inner kettle surface with a digital surface thermometer.
5. Temperature should be between 260°F and 265°F.
6. Using a screw driver adjust temperature by turning the potentiometer on the Solid State Temperature Control Box. Turn very little. Turn clockwise to INCREASES and counter-clockwise to DECREASE temperature.
7. Allow the unit to cycle twice.
8. Check temperature of the inner kettle surface with a digital surface thermometer.
9. Repeat steps **4.** through **8.** until unit is calibrated.

KIROSKAY

KETTLE JACKET CLEANOUT AND PASSIVATION PROCEDURES

The following procedure should be preformed at least once every three years to prevent possible corrosion and ensure the optimum life of the kettle.

WARNING:
IMPROPER REFILLING OF KETTLE JACKET WILL RESULT IN IRREVERSIBLE DAMAGE TO UNIT.

DANGER:
MOLYFILM 315 IS CORROSIVE, AVOID CONTACT WITH SKIN AND EYES.

DANGER:
AVOID INHALATION - VAPORS FROM MOLYFILM 315 MAY BE HARMFUL OR FATAL.

DESCRIPTION - Molyfilm 315 inhibits corrosion in stainless steel and copper. A pH buffer is present to assist in maintaining the appropriate pH to assist in corrosion inhibition.

DISPOSAL - Follow all Federal, State and local codes when disposing of product.

SHELF LIFE - Molyfilm 315's effectiveness will diminish after three years.

REFILL QUANTITIES (ORDERING INFO: 1 Liter Molyfilm 315 Rust Inhibitor - Part# KE600340-1)

IMPORTANT: To ensure satisfactory mixing follow the MIXING / FILLING PROCEDURE described below.

Kettle Size	Volume of Water		Volume of Molyfilm 315	
	U.S. Gal.	Liters	oz.	cc (ml.)
40 U.S. Gal.	6.5	24.5	7.8	230
60 U.S. Gal.	6.6	25.0	8.9	260
80 U.S. Gal.	7.0	26.5	9.5	280
100 U.S. Gal.	7.4	28.0	10.2	300

MIXING / FILLING PROCEDURE

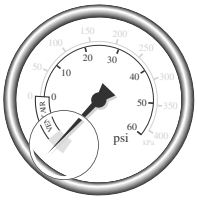
1. Refer to chart to determine the required volumes of water and Molyfilm 315.
2. In a separate container mix 1/2 gallon of the required volume of water with the total required volume of Molyfilm 315.
3. Pour mixture into kettle.
4. Pour the remaining required volume of water into kettle.

DANGER:
PRESSURE RELIEF VALVE WILL EXHAUST HIGH TEMPERATURE STEAM. CONTACT WITH SKIN COULD RESULT IN SERIOUS BURNS. KEEP FACE, HANDS AND BODY CLEAR OF DISCHARGE.

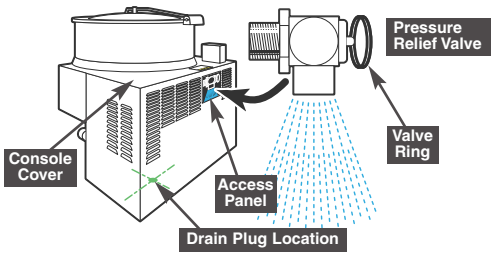
DANGER:
WORKING ON MACHINES WITH POWER COULD RESULT IN SEVERE ELECTRICAL SHOCK.

DANGER:
EXTREMELY HOT SURFACES. WORK ONLY ON COLD KETTLE.

Flushing Procedure



1. Ensure kettle is at room temperature and pressure gauge showing zero or less pressure.
2. Shut off gas supply.
3. Remove electrical plug from power source.
4. Remove console cover and access panel.
5. Pull pressure relief valve ring open to insure vessel is not pressurized.
6. Remove 1/4" copper tubing and reducer bushing.
7. Remove drain plug cap and allow kettle to drain. Flush out as much debris as possible with water.
8. Apply a thread sealant (i.e. Teflon tape) to the drain plug cap and replace.
9. Fill kettle jacket with a mixture of water and Molyfilm 315 (see REFILL QUANTITIES chart).
10. Apply a thread sealant (i.e. teflon tape) to the reducer bushing threads and replace copper tubing and reducer bushing.
11. Turn kettle on, vent and heat on high for 1/2 hour.
12. Cool and drain kettle as per above procedure.



Refilling Unit

1. Apply a thread sealant (i.e. Teflon tape) to the drain plug cap and replace.
2. Fill kettle jacket with a mixture of water and Molyfilm 315 (see REFILL QUANTITIES).
3. Apply a thread sealant (i.e. teflon tape) to the reducer bushing threads and replace.
4. Replace console cover and access panel.
5. Restore power to unit at the fused disconnect switch.
6. Vent kettle. See Kettle Venting Instructions for proper procedure.

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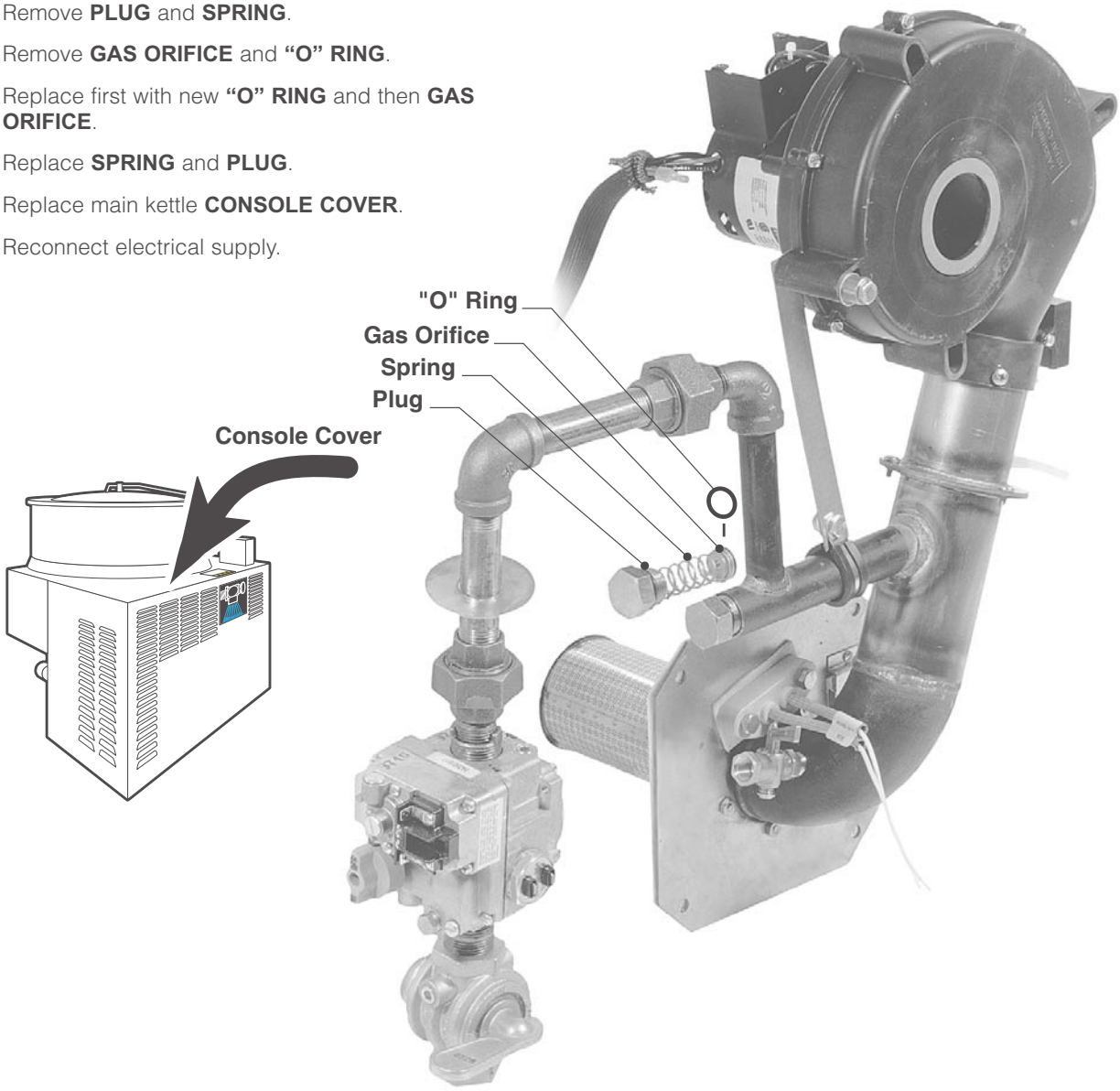
GAS KETTLE
ORIFICE REPLACEMENT

NOTE: Use thread sealant compatible with propane gas on all threaded piping connections.

1. Disconnect electrical connection.
2. Shut off main gas supply and disconnect kettle from supply line.
3. Remove main kettle **CONSOLE COVER**.
4. Remove **PLUG** and **SPRING**.
5. Remove **GAS ORIFICE** and **"O" RING**.
6. Replace first with new **"O" RING** and then **GAS ORIFICE**.
7. Replace **SPRING** and **PLUG**.
8. Replace main kettle **CONSOLE COVER**.
9. Reconnect electrical supply.



Kettles	BTU's per Hour	Gas Type	Water Column	# of Orifices
KGL-40,	140000	Natural Gas	3.5	1
KGL-40-T,	140000	Propane	3.5	1
KGL-60 to 100, KGL-60-T to 80-T, KGL-40-TSH, KGL-40-F to 60-F, KGL-40-SH to 60-SH,	190000 190000	Natural Gas Propane	3.5 3.5	1 1

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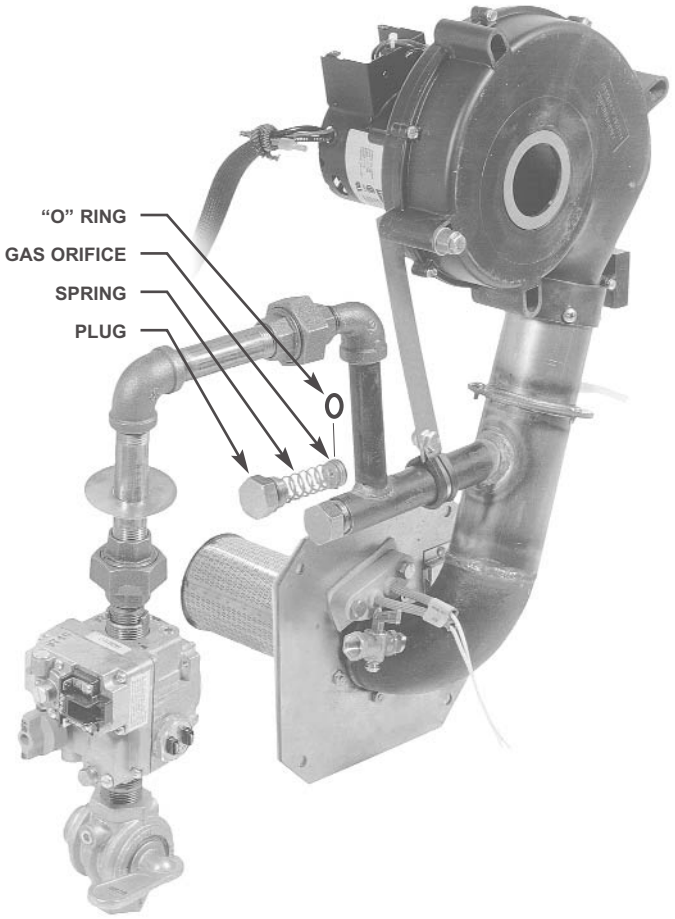
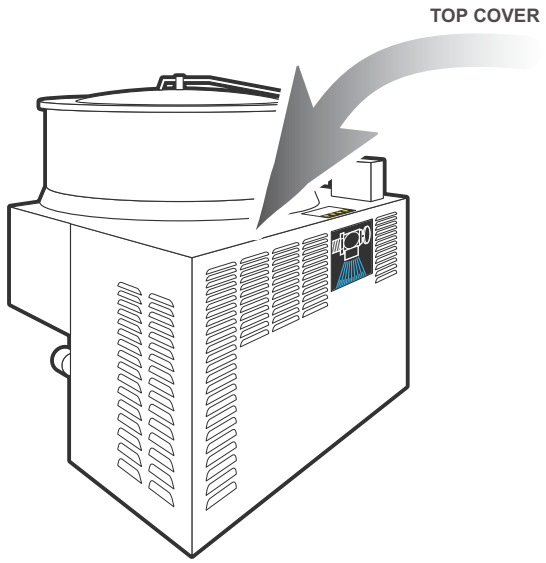
FIELD CONVERSION INSTRUCTIONS -

Natural Gas to Propane Gas

Power Burner Gas Kettles

	BTU's per Hour	Gas Type	Water Column	# of Orifices
KGL-40,	140000	NAT	3.5	1
KGL-40-T,	140000	LP	3.5	1
MKGL-40-T,				
KGL-60 to 100,				
KGL-60-T to 80-T,				
KGL-40-TSH,	190000	NAT	3.5	1
KGL-40-F to 60-F,	190000	LP	3.5	1
KGL-40-SH to 60-SH,				
HA-MKGL-60 to 100,				
HA-MKGL-60 to 100-T				





NOTE: Use thread sealant compatible with propane gas on all threaded piping connections.

1. Disconnect electrical connection.
2. Shut off main gas supply and disconnect kettle from supply line.
3. Remove **TOP COVER**.
4. Remove **PLUG** and **SPRING**.
5. Remove **GAS ORIFICE** and **"O" RING**.
6. Replace with new **GAS ORIFICE** and **"O" RING**.
7. Replace **SPRING** and **PLUG**.
8. Replace **TOP COVER**.
9. Place gas conversion label next to rating label.
10. Reconnect electrical supply.

Conversion Parts Required

KGL-40

Part No.	Description	Quantity
KE95549	Conversion Label	1
KE54420-1	Air Intake Washer	1
KE53403-5	Gas Orifice	1
FA05002-29	"O" Ring	1

KGL-60 to 100

Part No.	Description	Quantity
KE95549	Conversion Label	1
KE54420-1	Air Intake Washer	1
KE53403-7	Gas Orifice	1
FA05002-29	"O" Ring	1

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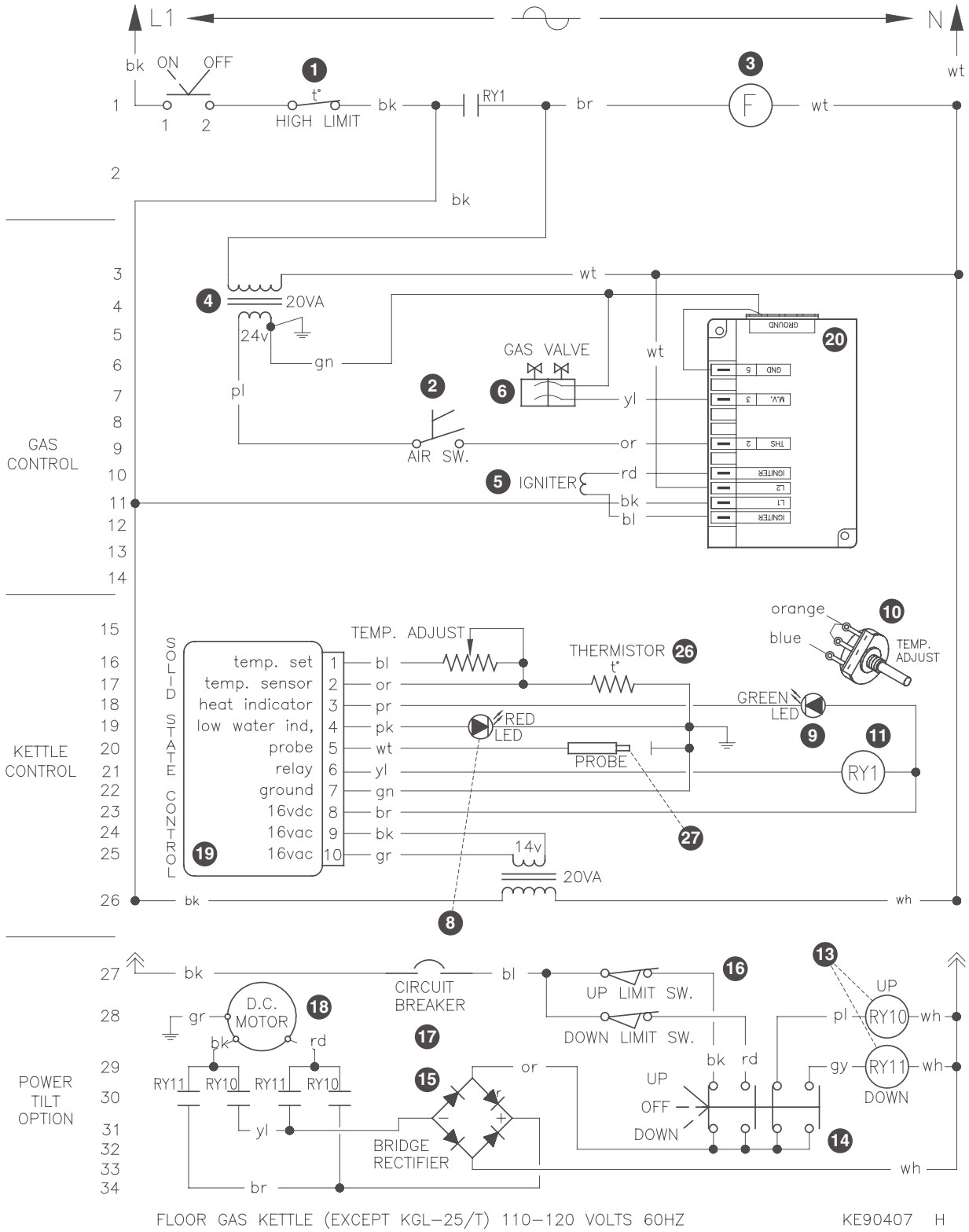
WIRING DIAGRAMS (after Sept. 2004)

Diagram #1

Floor Gas Kettle (except KGL-25/T) 110-120 Volts, 60Hz (NORTH AMERICA)



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WIRING DIAGRAMS (after Sept. 2004)

Diagram #1 (continued)

Floor Gas Kettle (except KGL-25/T) 110-120 Volts, 60Hz (NORTH AMERICA)

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	KE55069-6	SAFETY THERMOSTAT	1
2	KE53436	AIR PRESSURE SWITCH	1
3	KE53441	BLOWER, 115V, 60 HZ	1
4	KE53838-20	TRANSFORMER 120-24V	1
5	KE53437	IGNITOR	1
6	KE53515	GAS VALVE	1
8.	SE003013-1	L.E.D., RED, Replacement Kit., (includes LED & "O" Ring)	1
9.	SE003013-2	L.E.D., GREEN, Replacement Kit., (includes LED & "O" Ring)	1
10	SE00114	POTENTIOMETER WITH ON/OFF SWITCH	1
11	KE50753-7	RELAY, 120V	1
12	KE53838-20	TRANSFORMER 120-24V	1
13	KE50753-10	RELAY	2
14	FA20047	JAM NUT 5/16-24	1
	KE53137-3	MOMENTARY SWITCH ACTIVATOR	1
	KE53184	CONTACT SECTION HOLDER (LATCH)	1
15	KE50581	BRIDGE RECTIFIER	1
16	KE51007	MICRO SWITCH	2
17	KE50579	CIRCUIT BREAKER	1
18	KE52832	MOTOR "BODINE" #NSH-54RL	1
19	KE00458	KETTLE SOLID STATE CONTROL BOX	1
20	KE53469-4	IGNITION CONTROL MODULE	1
26.	KE00515	THERMISTOR	1
27.	KE50556-2	WATER LEVEL PROBE	1

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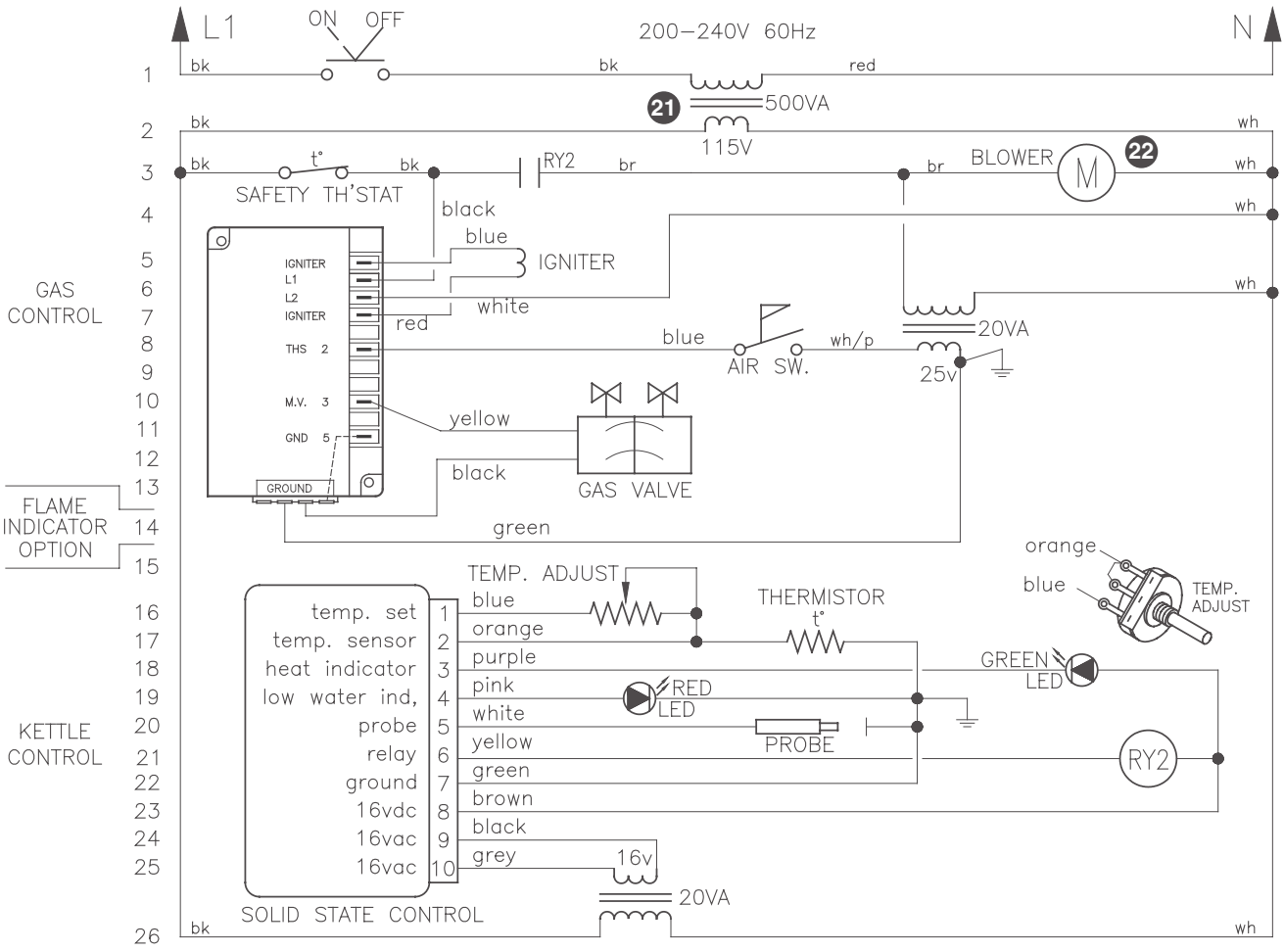
WIRING DIAGRAMS (after Sept. 2004)

Diagram #2 (see diagram #1 for common parts):

Floor Gas Kettle (except KGL-25/T) 200-240 Volts, 60Hz (NORTH AMERICA)

ITEM NO.	PART NO.	DESCRIPTION	QTY.
21	KE53838-2	TRANSFORMER 120-24V	1
22	KE53441	BLOWER, 115V, 60 HZ	1



FLOOR GAS KETTLE (EXCEPT KGL–25/T) 200–240 60HZ

KE90407–1 G

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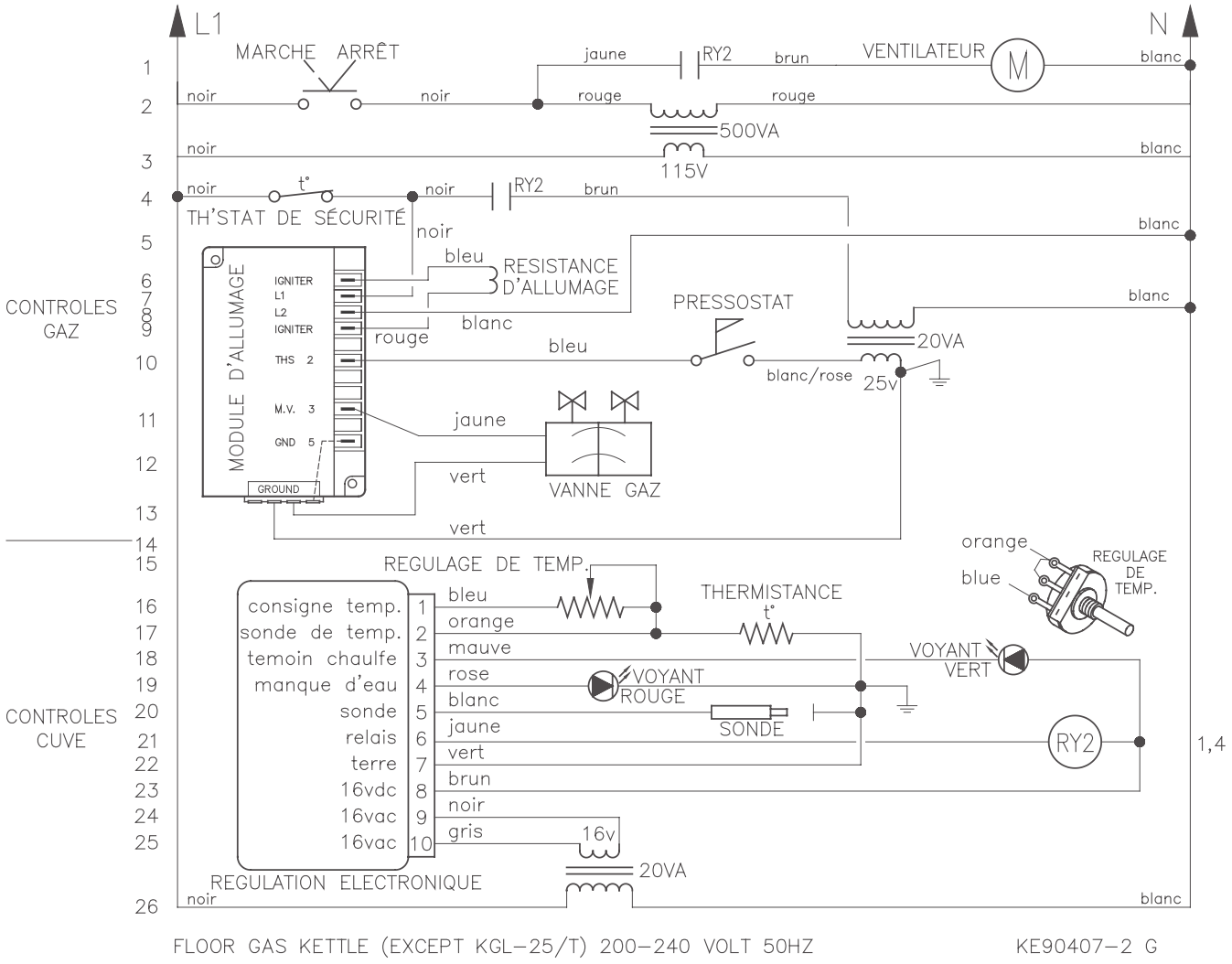
WIRING DIAGRAMS (after Sept. 2004)

Diagram #3

Floor Gas Kettle (except KGL-25/T) 200-240 Volts, 50Hz (CE FRANCE)



FLOOR GAS KETTLE (EXCEPT KGL-25/T) 200-240 VOLT 50HZ KE90407-2 G

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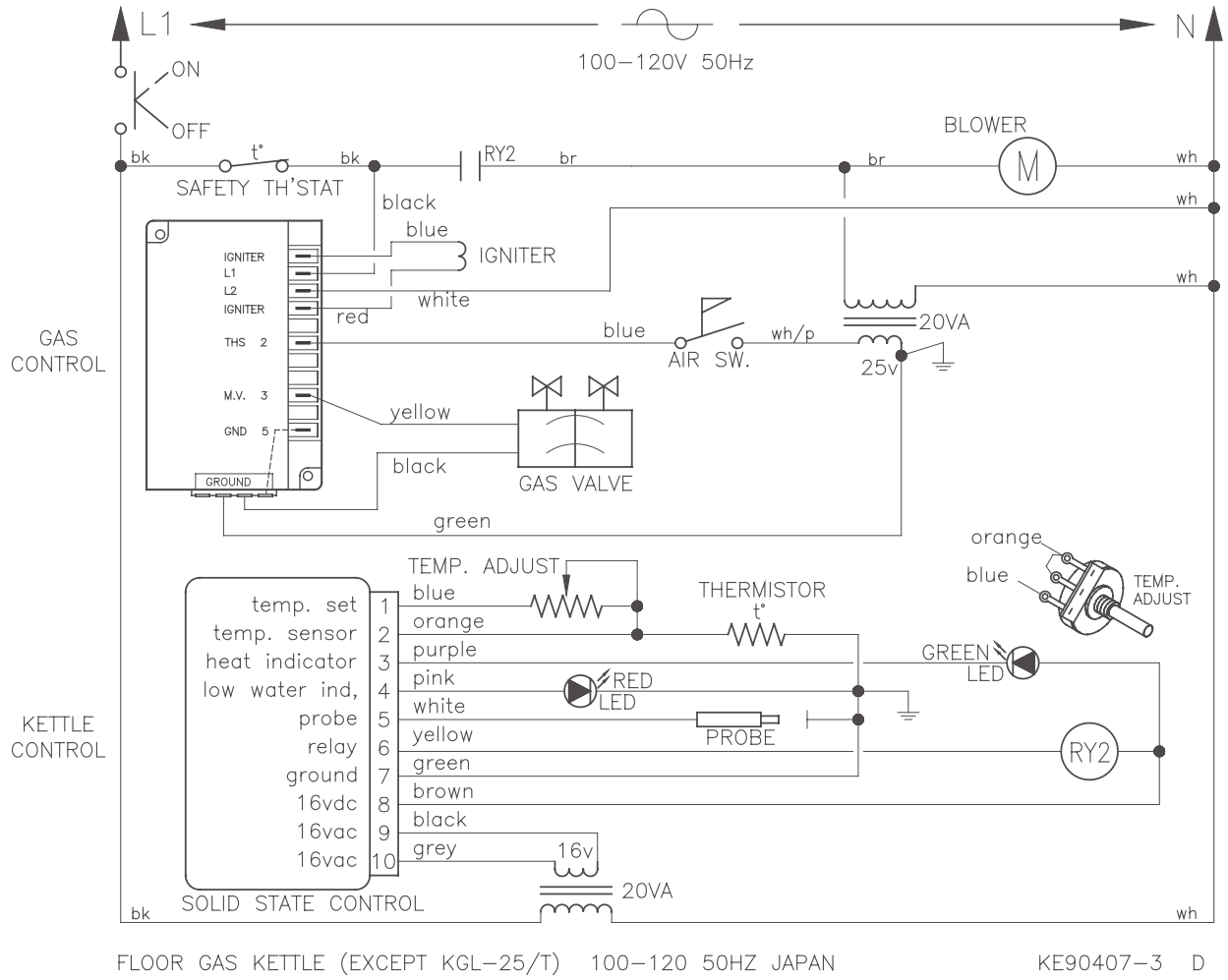
WIRING DIAGRAMS (after Sept. 2004)

Diagram #4

Floor Gas Kettle (except KGL-25/T) 100-120 Volts, 50Hz (CE, JAPAN)



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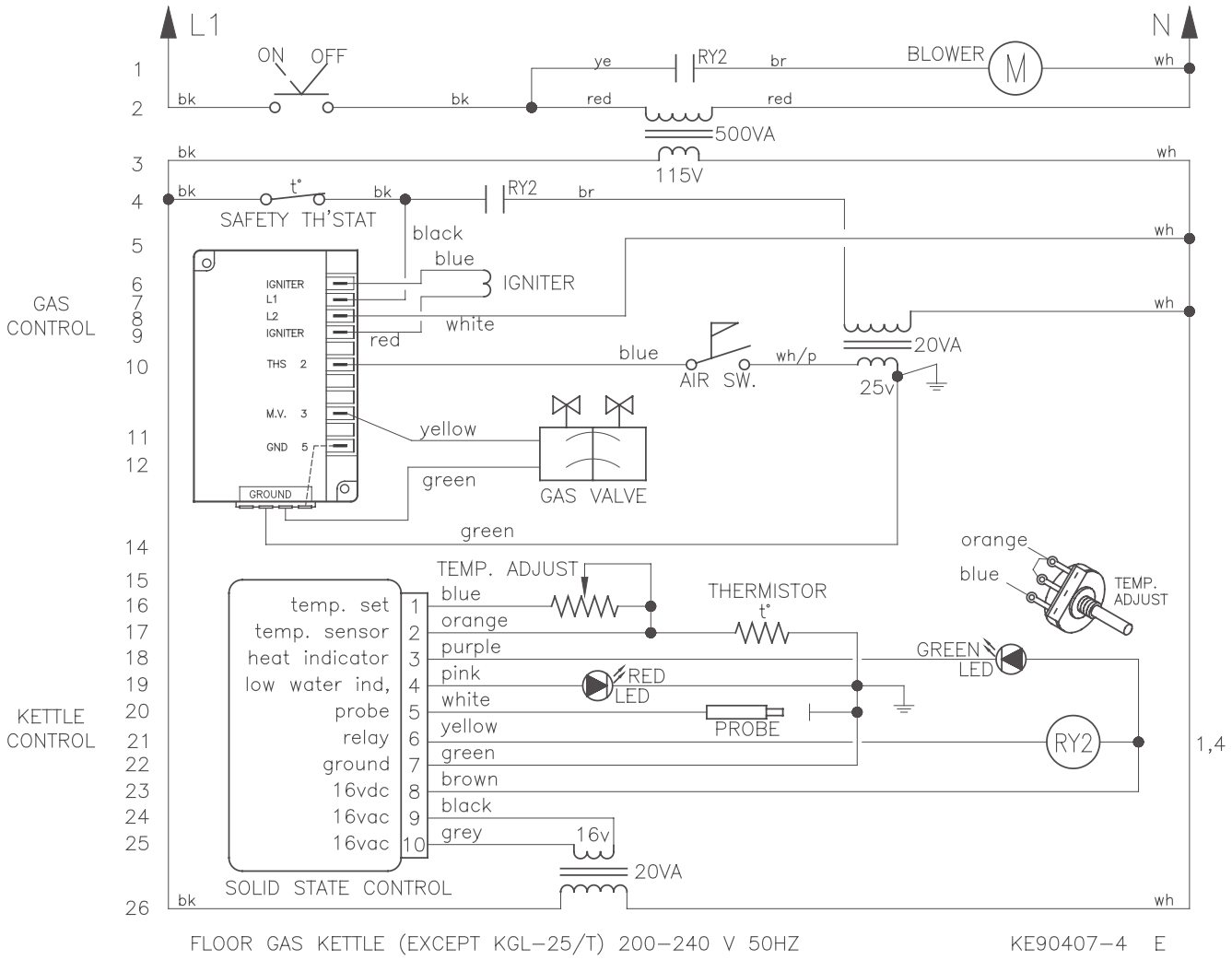
WIRING DIAGRAMS (after Sept. 2004)

Diagram #5

Floor Gas Kettle (except KGL-25/T) 200-240 Volts, 60Hz (CE ENGLAND)



FLOOR GAS KETTLE (EXCEPT KGL-25/T) 200-240 V 50HZ KE90407-4 E

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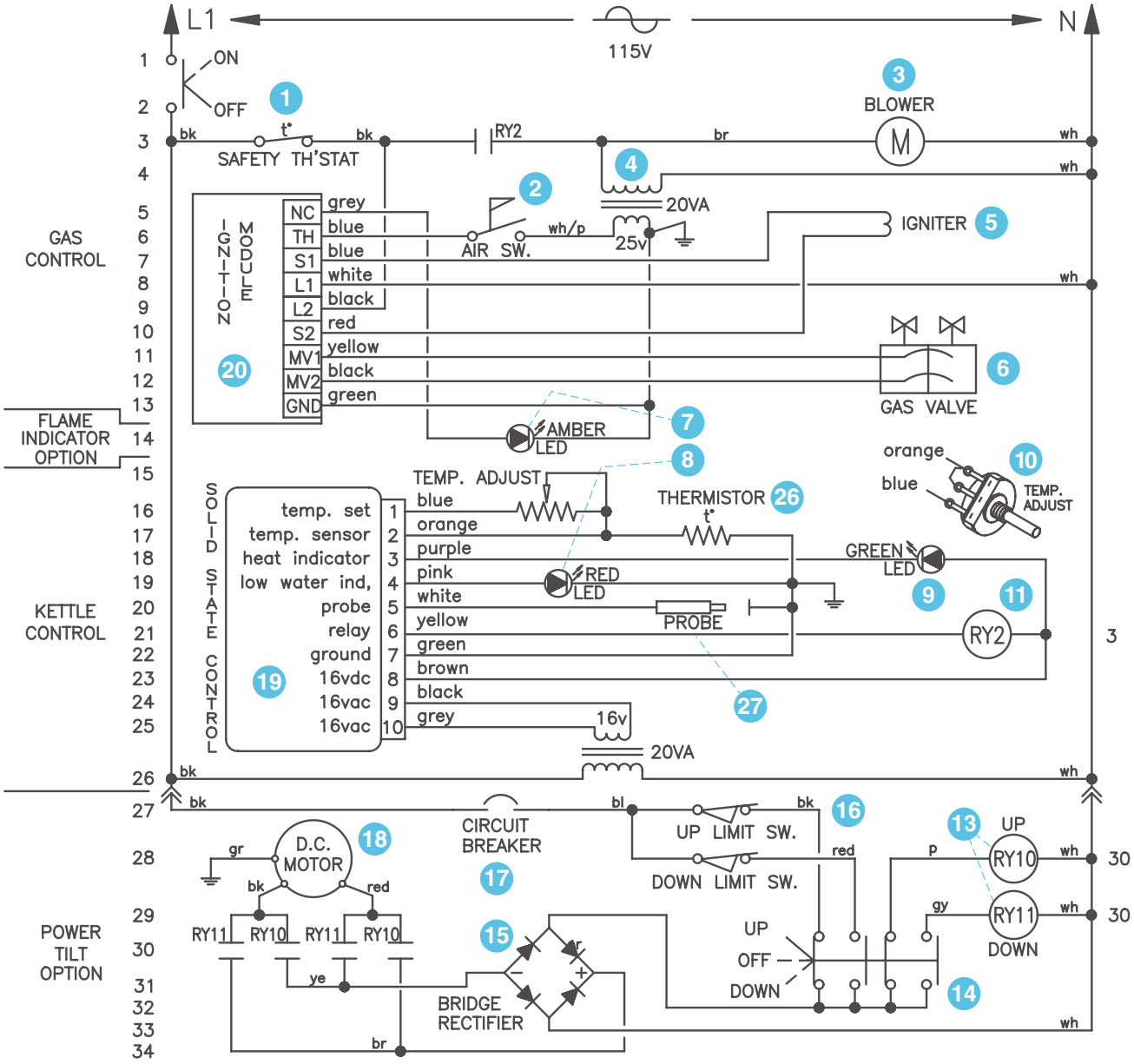
WIRING DIAGRAMS (prior to Sept. 2004)

Diagram #1

Floor Gas Kettle (except KGL-25/T) 110-120 Volts, 60Hz



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WIRING DIAGRAMS (prior to Sept. 2004)

Diagram #1 (continued)

Floor Gas Kettle (except KGL-25/T) 110-120 Volts, 60Hz

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	KE55069-6	SAFETY THERMOSTAT	1
2	KE53436	AIR PRESSURE SWITCH	1
3	KE53441	BLOWER, 115V, 60 HZ	1
4	KE53838-20	TRANSFORMER 120-24V	1
5	KE53437	IGNITOR	1
6	KE53515	GAS VALVE	1
7	KE50567-2	L.E.D., AMBER (USED PRIOR TO JULY 2004)	1
8	KE50567-1	L.E.D., RED	1
9	KE50568-1	L.E.D., GREEN	1
10	SE00114	POTENTIOMETER WITH ON/OFF SWITCH	1
11	KE50753-7	RELAY, 120V	1
12	KE53838-20	TRANSFORMER 120-24V	1
13	KE50753-10	RELAY	2
14	FA20047	JAM NUT 5/16-24	1
	KE53137-3	MOMENTARY SWITCH ACTIVATOR	1
	KE53184	CONTACT SECTION HOLDER (LATCH)	1
15	KE50581	BRIDGE RECTIFIER	1
16	KE51007	MICRO SWITCH	2
17	KE50579	CIRCUIT BREAKER	1
18	KE52832	MOTOR "BODINE" #NSH-54RL	1
19	KE00458	KETTLE SOLID STATE CONTROL BOX	1
20	KE53469-4	IGNITION CONTROL MODULE	1
26.	KE00515	THERMISTOR	1
27.	KE50556-2	WATER LEVEL PROBE	1

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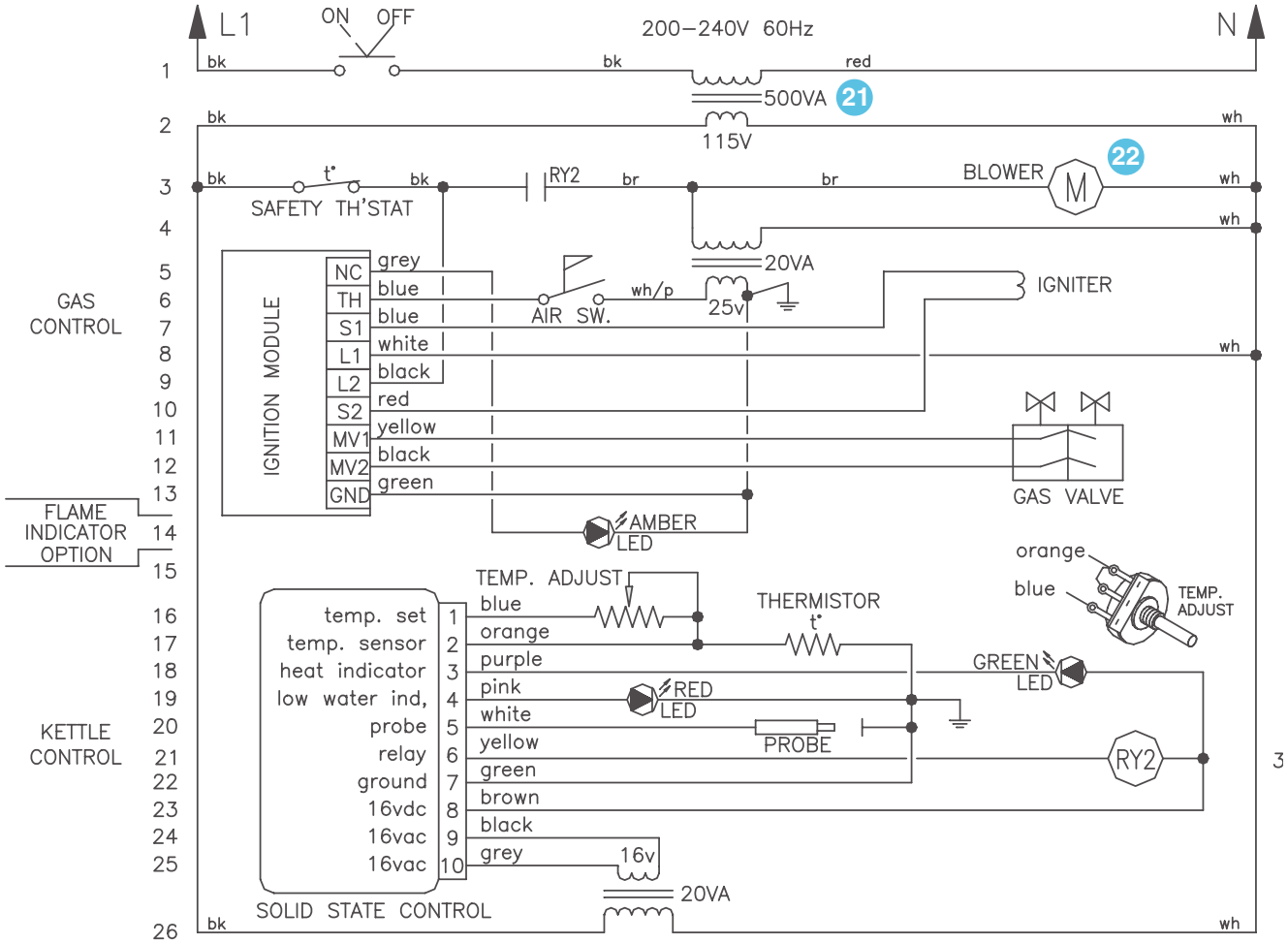
WIRING DIAGRAMS (prior to Sept. 2004)

Diagram #2 (see diagram #1 for common parts)

Floor Gas Kettle (except KGL-25/T) 200-240 Volts, 60Hz

ITEM NO.	PART NO.	DESCRIPTION	QTY.
21	KE53838-2	TRANSFORMER 120-24V	1
22	KE53441	BLOWER, 115V, 60 HZ	1



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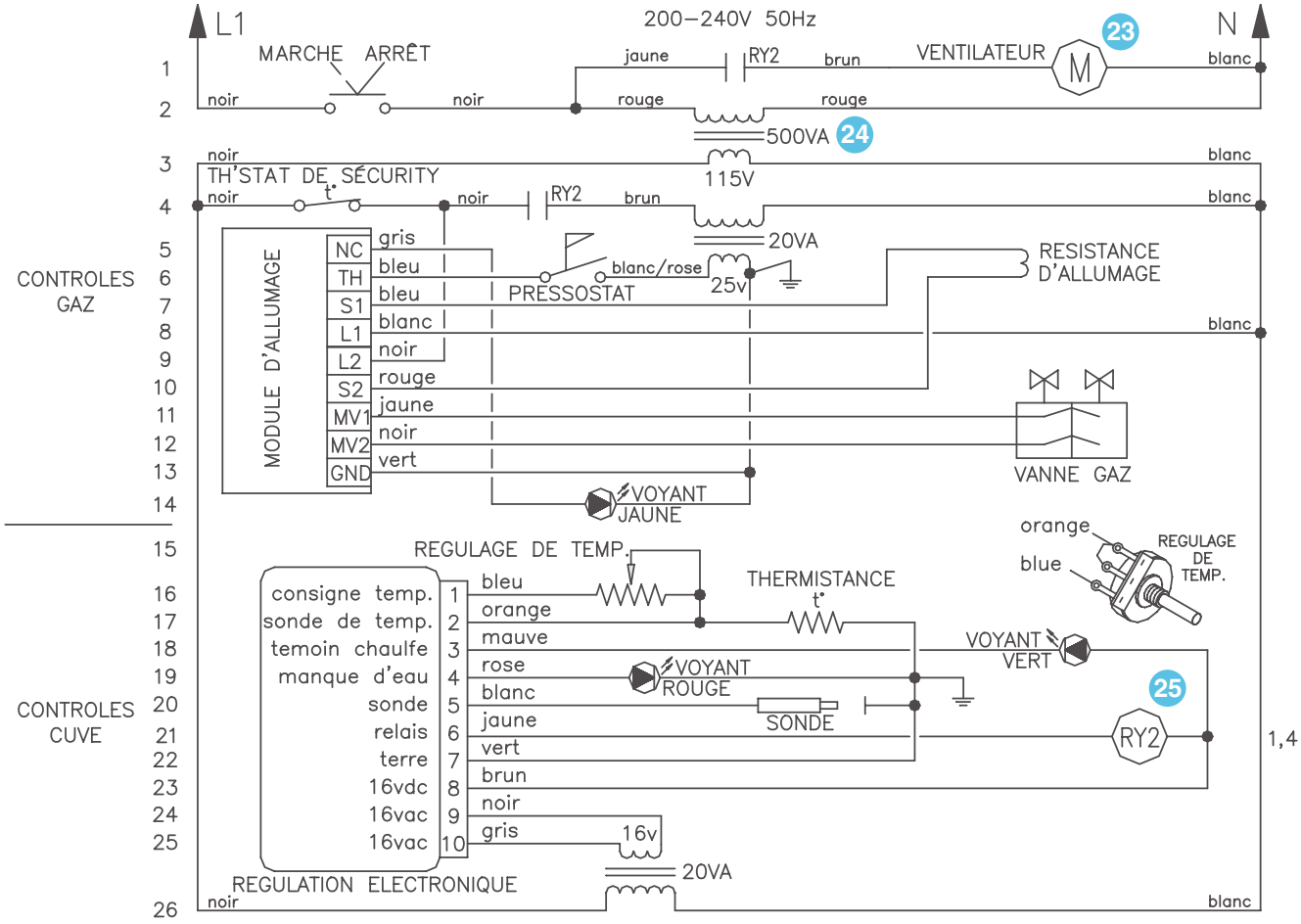
WIRING DIAGRAMS (prior to Sept. 2004)

Diagram #3 (see diagram #1 for common parts)

Floor Gas Kettle (except KGL-25/T) 200-240 Volts, 50Hz

ITEM NO.	PART NO.	DESCRIPTION	QTY.
23	KE53441-1	BLOWER, 220V, 50 HZ	1
24	KE53838-2	TRANSFORMER 120-24V	1
25	KE50753-8	RELAY, 240V	1



KE90407-2E

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SPARE PARTS LIST

The following is a spare parts listing of parts that wear during normal us or are apt to be misplaced during normal operation. These parts should be kept on hand to prevent loss time due to a minor problem.

PART NUMBER	DESCRIPTION	QUANTITY
KE00458	KETTLE SOLID STATE CONTROL BOX	1
KE50753-7	RELAY, 120V	1
KE55069-6	SAFETY THERMOSTAT	1
SE00114	POTENTIOMETER WITH ON/OFF SWITCH, C/W ITEM #4	1
KE50569-1	KNOB, POTENTIOMETER	1
KE00515	THERMISTOR	1
KE50580	WATER RESISTANT BOOT	1
FA00012	"O" RING, CIRCUIT BREAKER	1
KE50581	BRIDGE RECTIFIER	1
KE50753-10	RELAY	2

The following is a recommended list of space parts that may be required if the service agency is of some distance away or if down time must be kept to a minimum and spare parts are required for the service agent on site.

PART NUMBER	DESCRIPTION	QUANTITY
KE54941-5	1/2" FPT, 50 PSI., FOR ASME KETTLES	1
KE54941-31	1/2" FPT, 50 PSI., FOR CE KETTLE	1
KE53838-27	TRANSFORMER, 120-14V.	1
KE53469	IGNITION CONTROL	1
KE00458	KETTLE SOLID STATE CONTROL BOX	1
KE53436	AIR PRESSURE SWITCH	1
KE53838-20	TRANSFORMER 120-24V	1
KE52752	PISTON, TD-2	1
SE50010	PISTON, TD-3	1
SE003013-1	L.E.D., RED, Replacement Kit., (includes LED & "O" Ring)	1
SE003013-2	L.E.D., GREEN, Replacement Kit., (includes LED & "O" Ring)	1
SE003013-3	L.E.D., AMBER (Used prior to July 2004), Replacement Kit., (includes LED & "O" Ring)	1
KE50429-2	PRESSURE GAUGE	1
KE53437	IGNITOR	1
KE02053	GAS VALVE ASSEMBLY (PRIOR TO MARCH 2005)	1
KE55240R	GAS VALVE ASSEMBLY (AFTER FEBRUARY 2005)	1
KE53137-3	MOMENTARY SWITCH ACTIVATOR	1
KE53184	CONTACT SECTION HOLDER (LATCH)	1
KE53138-1	CONTACT BLOCK	4

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